

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,

05 : 11367 REK

Civil Action No.

Plaintiff

COMPLAINT

v.

Jury Trial Demanded

WEST BEND HOUSEWARES, LLC and

FOCUS PRODUCTS GROUP, L.L.C.

Defendants.

RECEIPT # 65298
AMOUNT \$ 250
SUMMONS ISSUED 40
LOCAL RULE 4.1
WAIVER FORM
MCF ISSUED
BY DPTY. CLK. FOM
DATE 6/28/05

Plaintiff, THE HOLMES GROUP, INC., by way of its Complaint against defendants,

THE WEST BEND COMPANY and FOCUS PRODUCTS GROUP, L.L.C., alleges and says:

THE PARTIES

1. Plaintiff, THE HOLMES GROUP, INC. ("HOLMES"), is a Massachusetts corporation having a principal place of business at One Holmes Way, Milford, Massachusetts 01757.

2. Upon information and belief, defendant, FOCUS PRODUCTS GROUP, L.L.C. ("FOCUS") is a limited liability Illinois corporation having a principal place of business at 120 Lakeview Parkway, Vernon Hills, Illinois 60061 and defendant, WEST BEND HOUSEWARES, LLC is a limited liability Illinois corporation having a principal place of business at 120 Lakeview Parkway, Vernon Hills, Illinois 60061, and is a wholly owned subsidiary of FOCUS; (hereinafter collectively referred to as "WEST BEND").

SUBJECT MATTER JURISDICTION

3. Jurisdiction over the subject matter of the within Complaint is vested in the United States District Court pursuant to 28 U.S.C. § 1331 [general federal question jurisdiction]

and 28 U.S.C. § 1338(a) [special federal question jurisdiction].

VENUE

4. Venue over the within action is proper in the federal judicial district comprising the United States District Court for the District of Massachusetts pursuant to 28 U.S.C. § 1391(b) and 28 U.S.C. § 1400(b).

PATENT INFRINGEMENT

5. HOLMES is the owner by assignment of all right, title, and interest in and to United States Letters Patent No. 6,573,483 B1 (hereinafter referred to as “the ‘483 patent”) entitled, “Programmable Slow-Cooker Appliance”. A copy of the ‘483 patent is attached hereto as Exhibit A.

6. The ‘483 patent was duly and legally issued on June 2, 2003 to HOLMES. The ‘483 patent remains in full force and effect.

7. HOLMES is the owner by assignment of all right, title, and interest in and to United States Letters Patent No. 6,740,855 B1 (hereinafter referred to as “the ‘855 patent”) entitled, “Programmable Slow-Cooker Appliance”. A copy of the ‘855 patent is attached hereto as Exhibit B.

8. The ‘855 patent was duly and legally issued on May 25, 2004 to HOLMES. The ‘855 patent remains in full force and effect.

9. HOLMES has and continues to distribute, market, and sell programmable slow cooker appliances covered by the claims of the ‘483 patent and the ‘855 patent (hereinafter collectively referred to as “the patents-in-suit”).

10. On information and belief, WEST BEND has manufactured, imported, distributed, marketed, offered for sale, and sold certain slow cooker appliances (hereinafter “the

accused products”) covered by the claims of the patents-in-suit. At least one such accused product is identified as the WEST BEND® Housewares 6-Quart Electronic Crockery Cooker, Model 84386. A copy of selected pages from the owner’s manual for the accused product is attached as Exhibit C.

11. The activities of WEST BEND constitute direct infringement, contributory infringement and/or actively inducing infringement of the patents-in-suit.

12. WEST BEND’s infringement of the patents-in-suit has been without license from HOLMES and in violation of HOLMES’ patent rights, and it is believed that WEST BEND will continue to infringe HOLMES’ patent rights unless enjoined by this Court.

13. WEST BEND’s acts of infringement have been willful and deliberate, with full knowledge of HOLMES’ patent rights.

14. As a result of WEST BEND’s willful infringement of the patents-in-suit, HOLMES has been damaged and will continue to be damaged in an amount to be determined at trial. HOLMES has suffered and will continue to suffer irreparable injury unless the infringing activities of WEST BEND are enjoined.

15. By virtue of WEST BEND’s willful and deliberate infringement, this is an “exceptional case” within the meaning of 35 U.S.C. § 285.

WHEREFORE, HOLMES prays for the following relief:

- A. Judgment for HOLMES on its cause of action for patent infringement.
- B. Preliminary and permanent injunction enjoining WEST BEND, its officers, directors, agents, employees, and all those in active concert or participation with them who receive actual notice of the judgment by personal service or otherwise, from making, using, importing, offering for sale, and selling infringing fans and from otherwise infringing,

contributing to infringement, and actively inducing infringement of the patents-in-suit.

C. An award of compensatory and punitive damages to HOLMES by reason of the wrongs committed by WEST BEND, including an award of increased damages pursuant to 35 U.S.C. § 284, for defendant's willful and deliberate patent infringement.

D. An award of costs of this action together with HOLMES' attorneys' fees pursuant to 35 U.S.C. § 285.

E. An assessment of interest on the damages so computed.

F. Such other and further relief as this Court deems just and proper.

PLAINTIFF DEMANDS A TRIAL BY JURY.

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Dated: June 28, 2005

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US006573483B1

(12) **United States Patent**
DeCobert et al.

(10) Patent No.: **US 6,573,483 B1**
(45) Date of Patent: **Jun. 3, 2003**

- (54) **PROGRAMMABLE SLOW-COOKER APPLIANCE**
- (75) Inventors: **James E. DeCobert**, Attleboro, MA (US); **Lorens G. Hlava**, Clinton, MO (US); **Charles T. Thrasher, Jr.**, Clinton, MA (US)
- (73) Assignee: **The Holmes Group, Inc.**, Milford, MA (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/802,174**

(22) Filed: **Mar. 8, 2001**

Related U.S. Application Data

- (60) Provisional application No. 60/189,443, filed on Mar. 15, 2000, and provisional application No. 60/196,273, filed on Apr. 5, 2000.

- (51) Int. Cl.⁷ **H05B 1/02**
- (52) U.S. Cl. **219/506; 219/494; 219/497; 219/435; 219/432; 99/340**
- (58) Field of Search **219/433, 432, 219/435, 506, 494, 518; 99/340**

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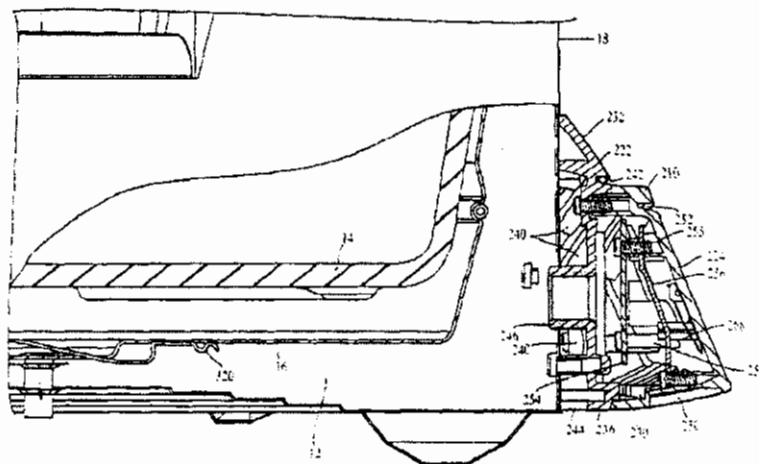
Primary Examiner—Mark Paschall

(74) Attorney, Agent, or Firm—Brinks Hofer Gilson & Lione

(57) ABSTRACT

A programmable slow-cooker appliance, in which a user sets a time and temperature for cooking a food item. A programmable controller prevents the unit from being used solely as a "keep warm" appliance, and a unique design allows cooling of the controller during cooking.

19 Claims, 12 Drawing Sheets

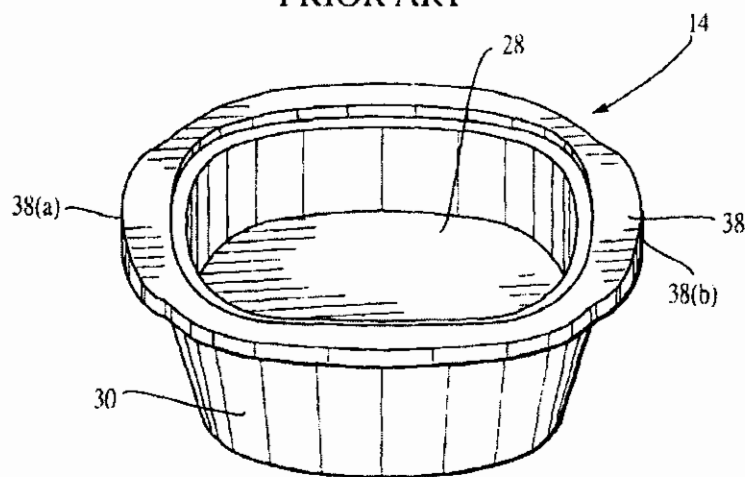
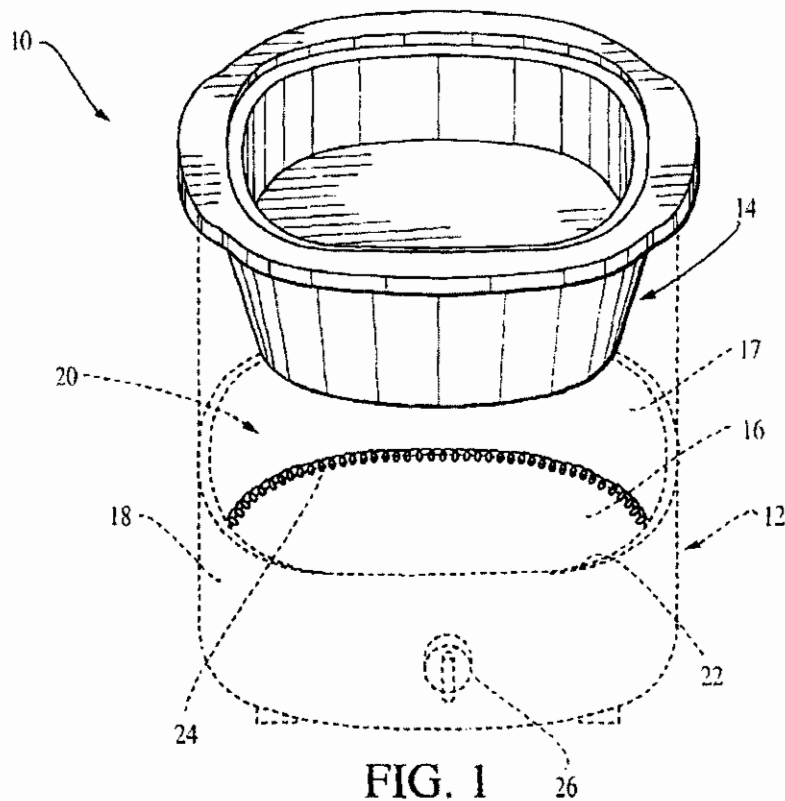


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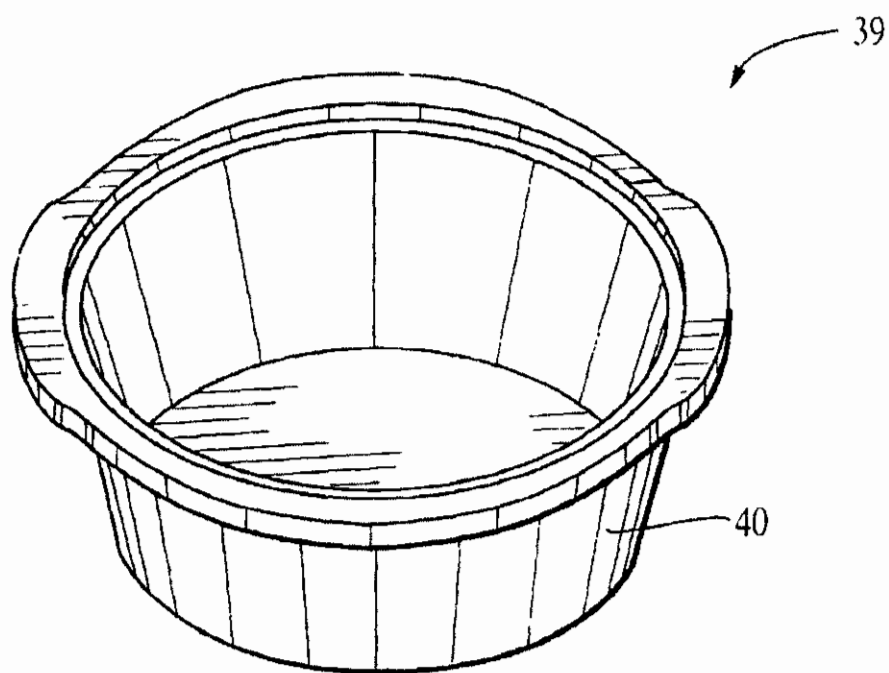


FIG. 3
PRIOR ART

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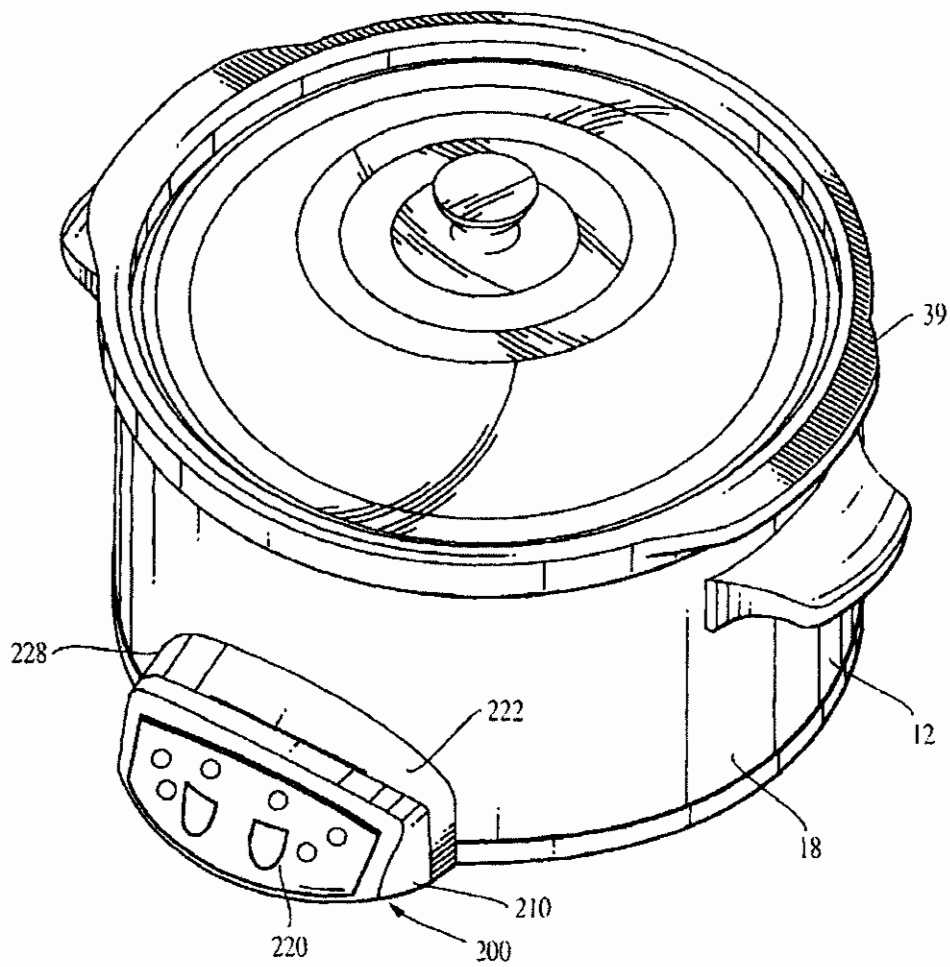


FIG. 4

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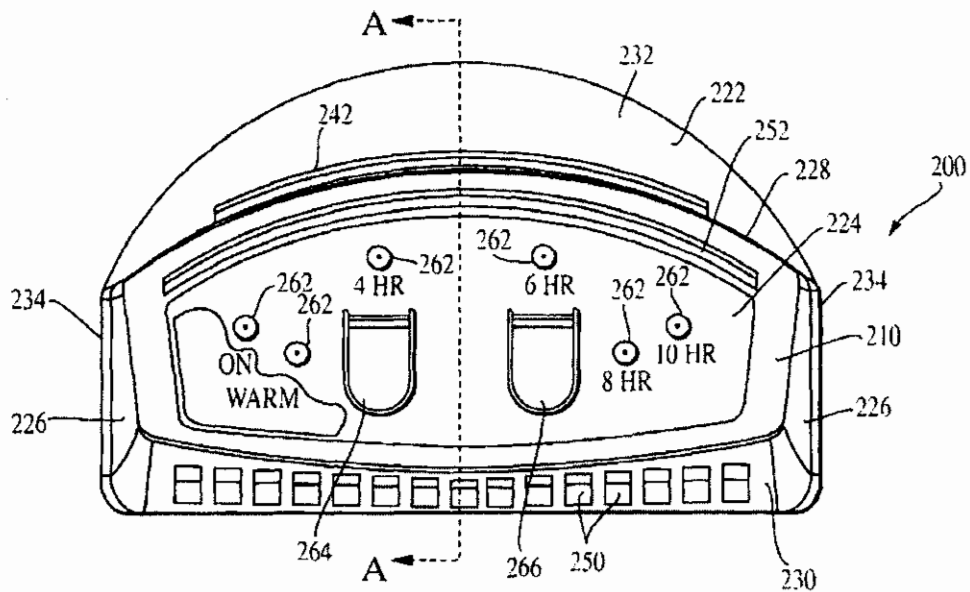


FIG. 5

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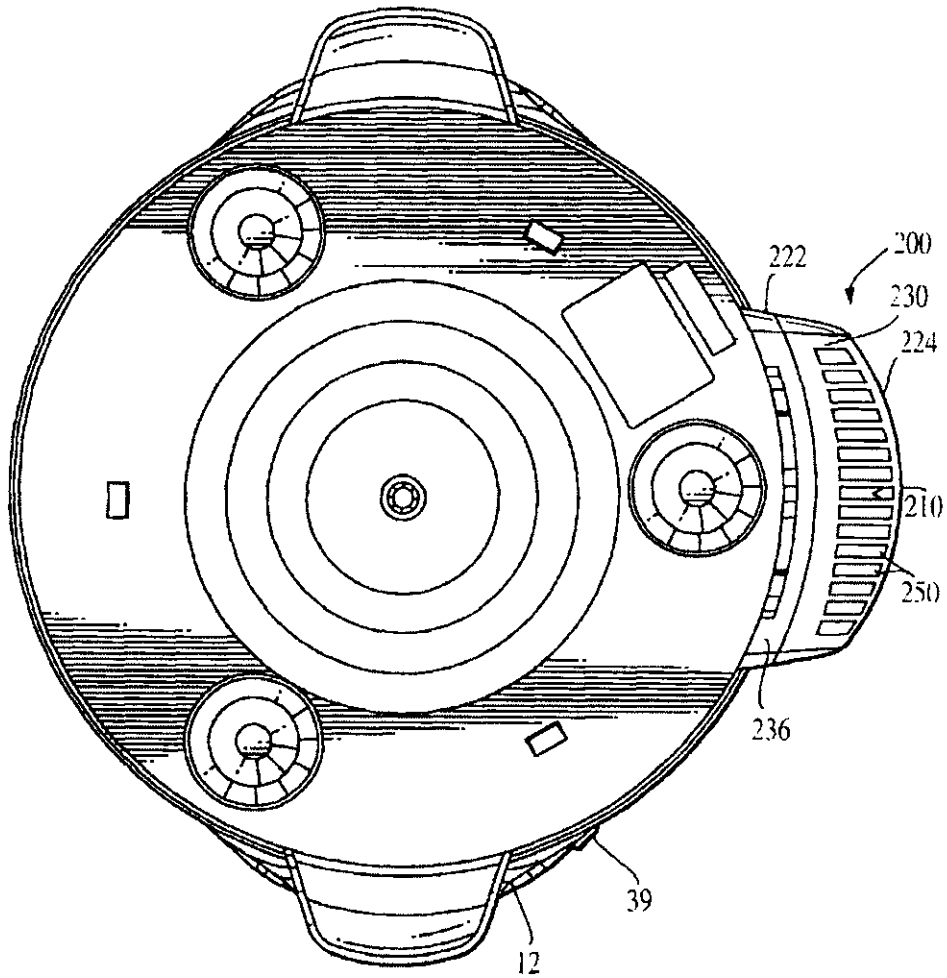
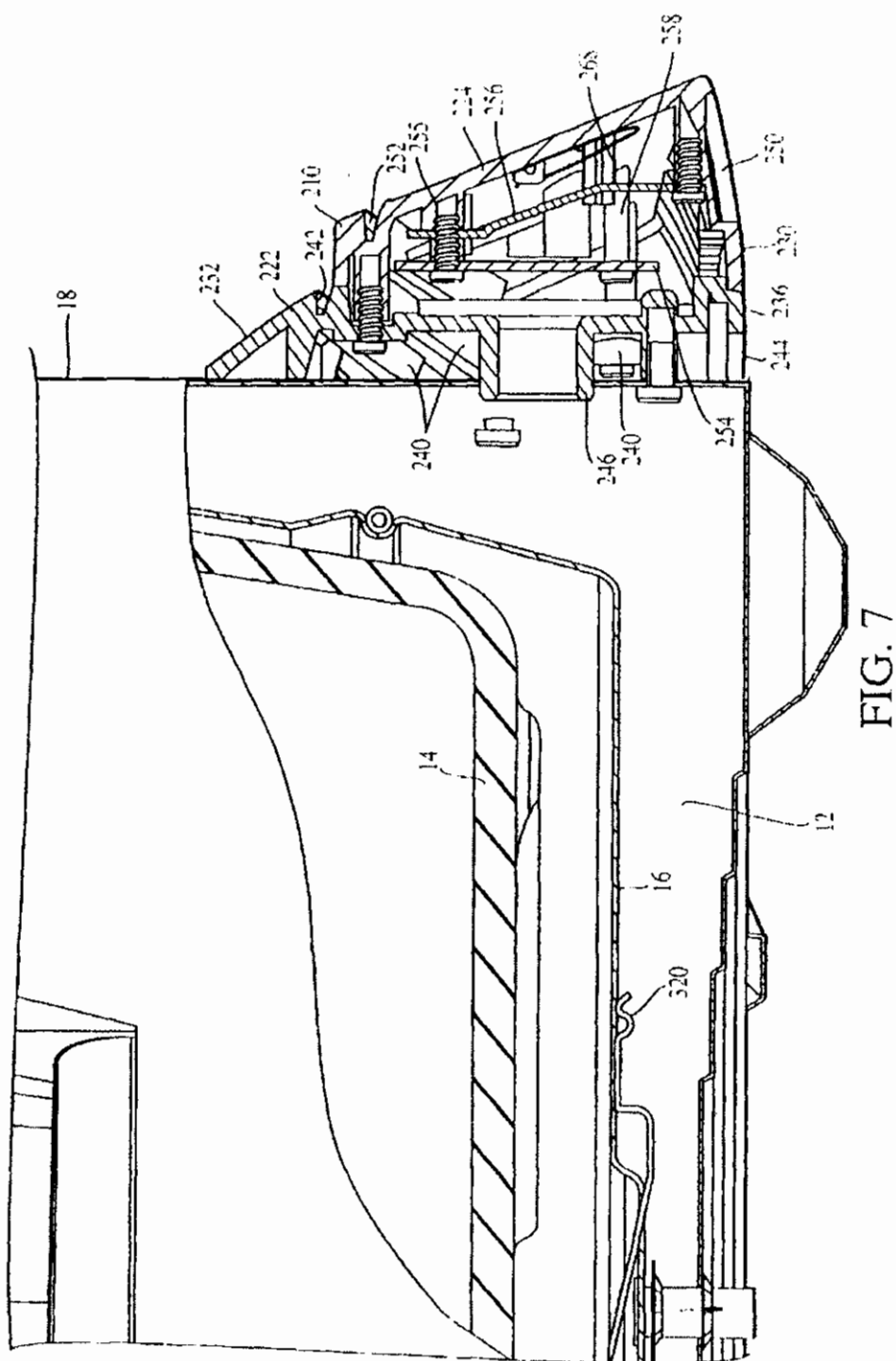


FIG. 6



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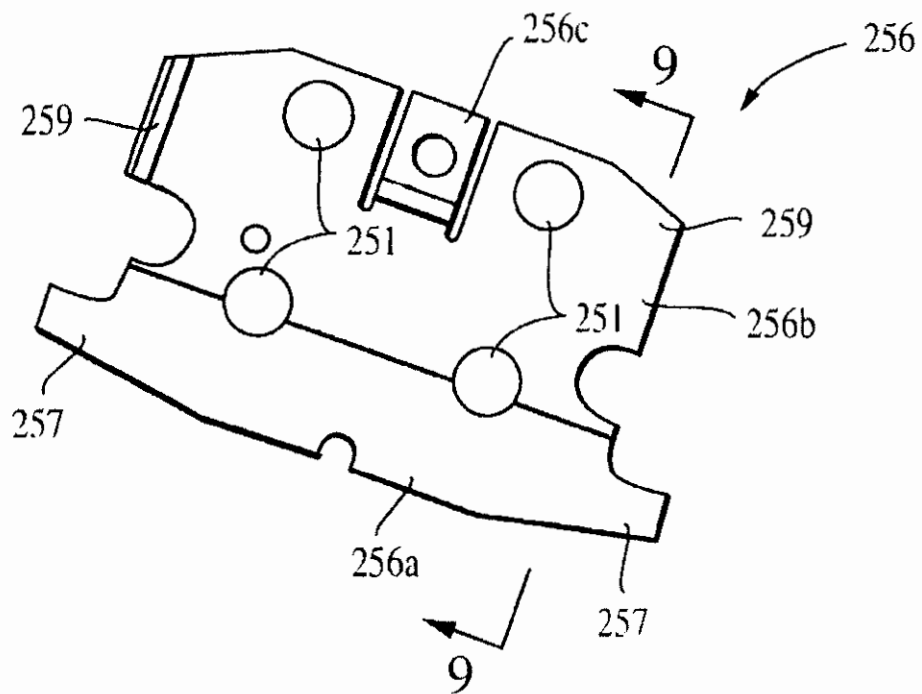


FIG. 8

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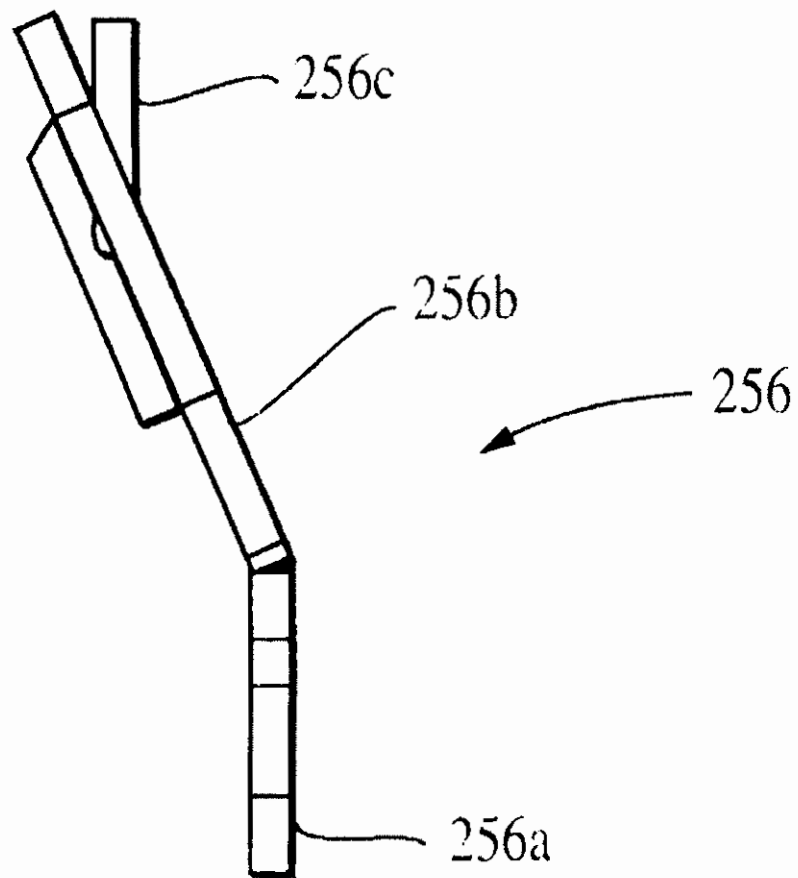


FIG. 9

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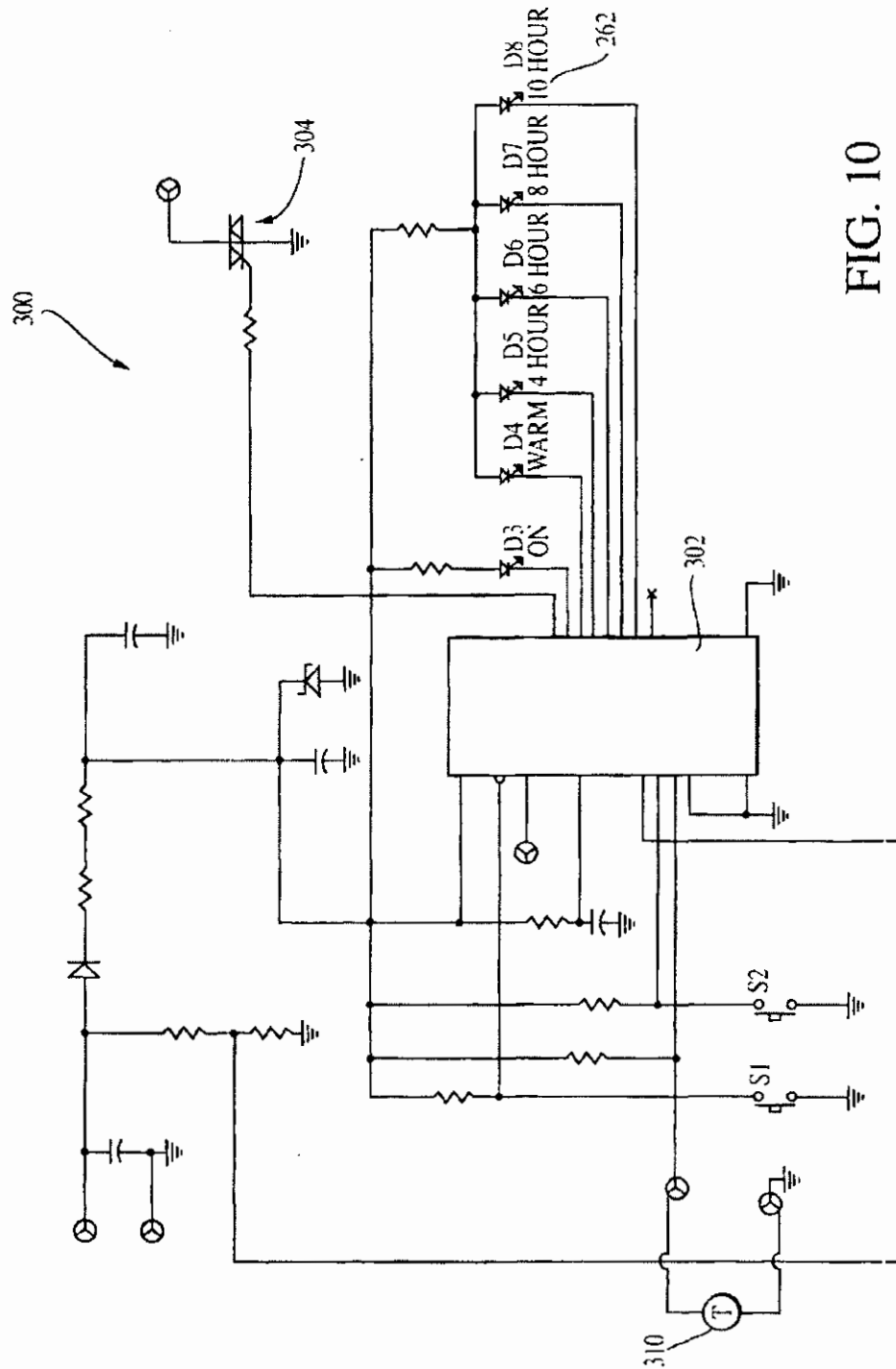


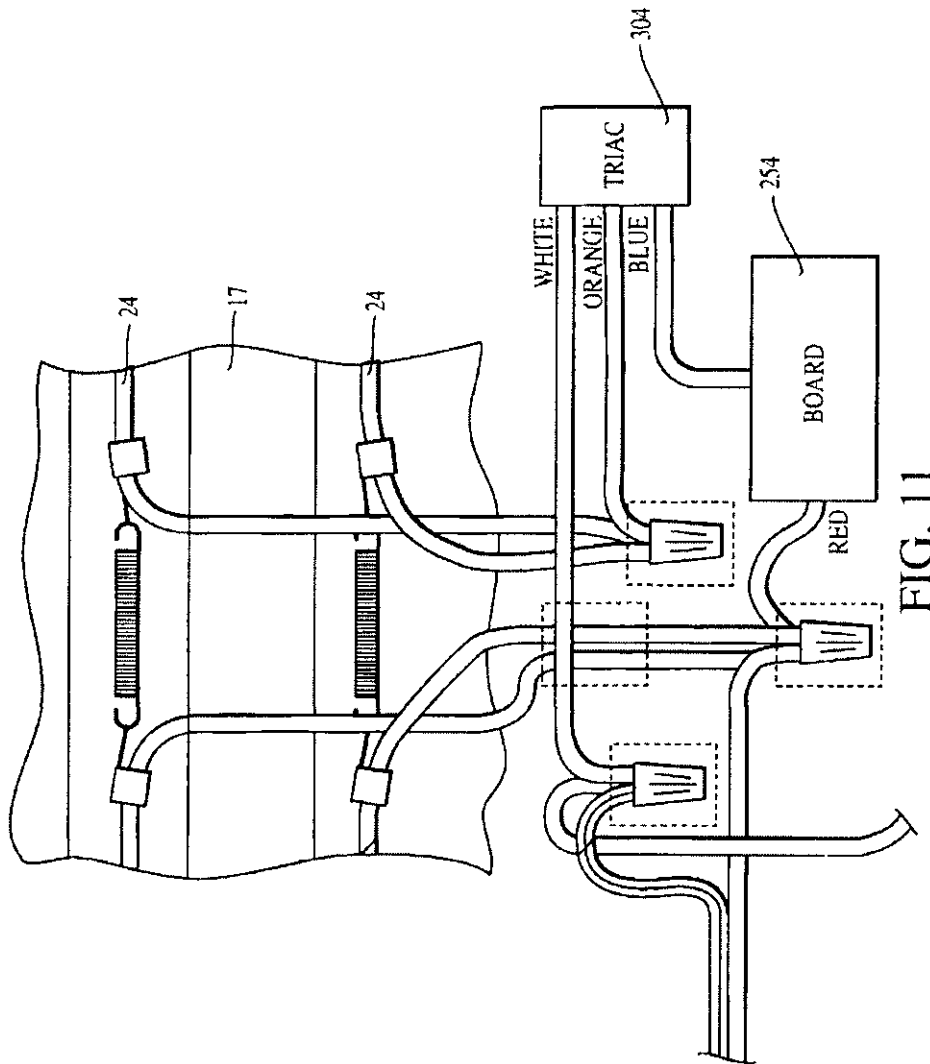
FIG. 10

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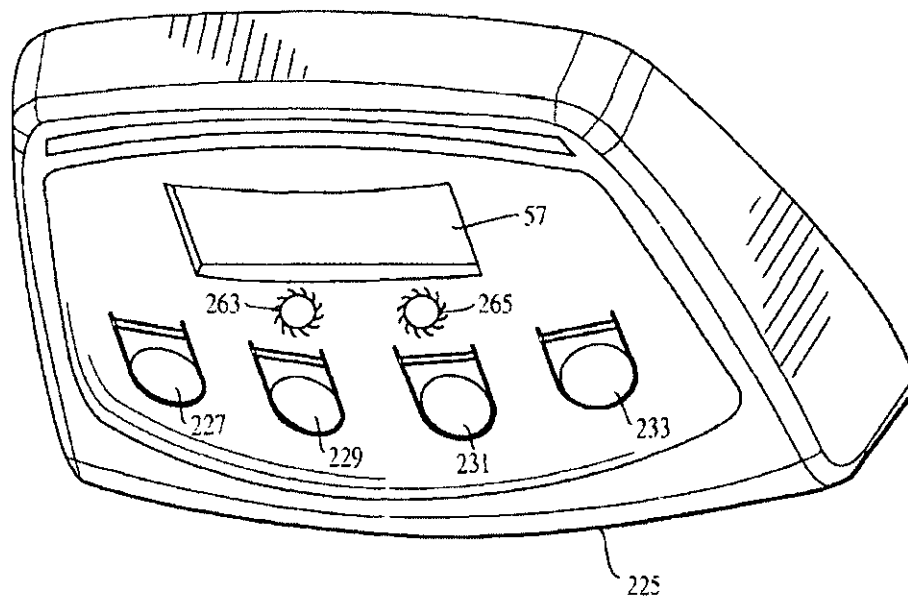


FIG. 12

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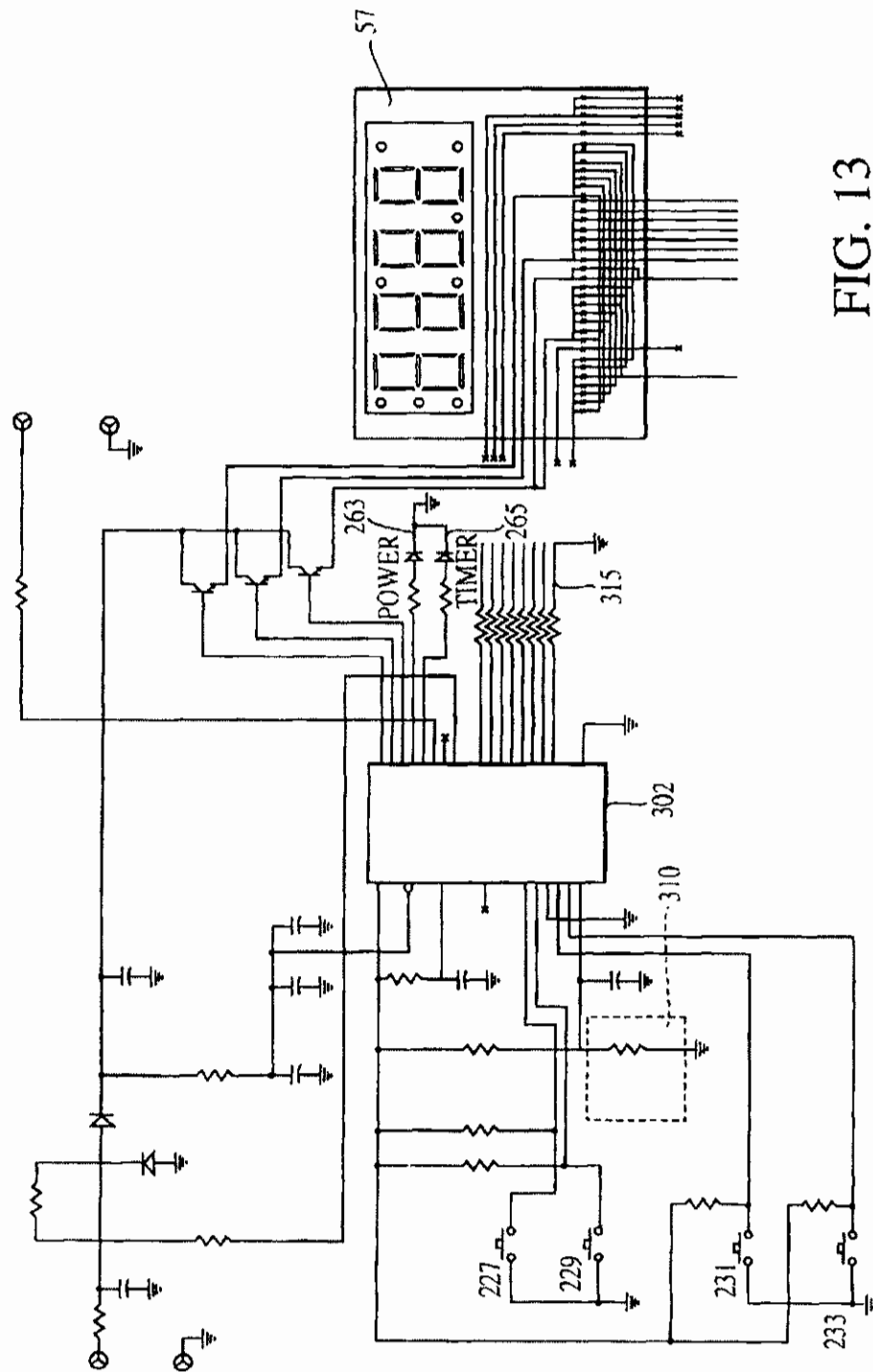


FIG. 13

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**PROGRAMMABLE SLOW-COOKER
APPLIANCE**

This application claims priority to Provisional Application No. 60/189,443, filed Mar. 15, 2000, and to Provisional Application No. 60/196,273, filed Apr. 5, 2000.

BACKGROUND OF THE INVENTION

Time and convenience are in short supply for homemakers wishing to supply a home-cooked meal to family members. Some appliances, such as slow-cooker appliances, attempt to meet this need by providing all-day cooking while a homemaker is absent. Such appliances, however, tend to be of the type where only one temperature and all day cooking is possible, regardless of the food item, and thus potentially subjecting the food item to over- or under-cooking. Another option may be to use a cooking unit with a controller, where a user may set a time or temperature desired. These units, however, tend to be quite a bit larger and more expensive than slow-cooker appliances. If these units are of more reasonable size, they also suffer because the controller inevitably must be placed near the heating element.

What is needed is a cooking appliance in which the user retains control over the time and temperature of cooking, but which is small enough to be convenient. What is needed is a slow-cooker unit in which the controller does not become overheated and damaged by the heating element.

SUMMARY OF THE INVENTION

One embodiment of the invention is a programmable slow-cooker appliance, including a heating unit, which includes upstanding sidewalls and a bottom wall. The sidewalls and bottom encompass a heating area. The appliance includes a heating element mounted on the inner surface of the interior wall of the heating unit. In one embodiment, the cooking area may also encompass a cooking unit inside the heating unit, suitable for holding food to be cooked. The appliance includes a programmable controller mounted on its outside, and preferably mounted via a controller housing, which acts to insulate the controller from the heat of the appliance, preferably via a unique system of a heat sink and ventilation. The housing, on the side of the slow-cooker appliance, utilizes ventilation holes on its bottom and top to encourage a chimney effect, in which cool air from the surroundings is drawn into ventilation slots or holes at the bottom of the housing. This air cools the controller, and the air is then expelled from ventilation holes on the top of the housing, convecting heat away from the controller.

Another aspect of the invention is a method of using the programmable controller to ensure that food is cooked according to the desires of a user. The user provides a food item and places the food item into the slow-cooker appliance, as described above. The user sets a cooking time and temperature for the programmable slow-cooker unit, using the controls to set both the time and the temperature. The cooking time according to one embodiment may not be set less than four hours, and the temperature may not be set for less than 150 degrees Fahrenheit (66 degrees Celsius). This prevents a user from accidentally setting the cooker to a "warm" temperature, in which food would only be warmed but not cooked thoroughly before consumption. In one embodiment, if the user sets no time or temperature, but merely turns the cooker on, the cooker defaults to a particular time and temperature, set by the user or the factory, such as a default setting of four hours and 175 degrees Fahrenheit or eight hours and 150 degrees Fahrenheit.

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BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an embodiment of a prior art slow-cooker appliance having an oval shape that may be utilized in the present invention;

FIG. 2 is a perspective view of a prior art embodiment of a cooking unit 14 which may be utilized with the appliance of FIG. 1;

FIG. 3 is a perspective view of a prior art cooking unit 39 similar to that shown in FIG. 2, but having a circular shape;

FIG. 4 is a perspective view of a slow cooker appliance incorporating the present invention;

FIG. 5 is a detailed plan view of a portion of the control 200 of the embodiment of FIG. 4;

FIG. 6 is a bottom plan view of the embodiment of FIG. 4;

FIG. 7 is a side cutaway view of the embodiment of FIG. 4;

FIG. 8 is a plan view of a heat sink 256 as utilized in the embodiment of FIG. 4;

FIG. 9 is a side view taken along a line 9—9 of FIG. 8;

FIGS. 10 and 13 are schematic circuit diagrams showing the circuitry and components implemented in preferred embodiments;

FIG. 11 is a wiring diagram showing some of the electric componentry of the preferred embodiment; and

FIG. 12 is an embodiment of the front panel.

**DETAILED DESCRIPTION OF THE DRAWINGS
AND PREFERRED EMBODIMENTS**

Referring to FIG. 1, one prior art embodiment of a food-heating slow-cooker appliance 10 is shown. The appliance 10 preferably comprises a heating unit 12 and a cooking unit 14. An exemplary slow cooker appliance 10 may be a Crock-Pot® Slow Cooker made by The Rival Division of The Holmes Group® of Milford, Mass. The heating unit 12 preferably has a bottom 16 and a continuous outer sidewall 18. The bottom 16 and an interior sidewall 17 define a well-like heating chamber 20 having an oval cross-section, and the interior sidewall 17 defines an annular lip 22 at an upper edge of the outer sidewall 18 and the interior sidewall 17. The heating chamber 20 has a heating element 24 disposed therein and mounted to the heating unit 12, either under the bottom 16 or additionally between the outer sidewall 18 and the interior sidewall 17. A control switch 26 is conventionally used to provide electricity to the heating element 24. The heating element 24 functions to heat the cooking unit 14 via the heating chamber 20.

As shown in FIG. 2, the cooking unit 14 has a bottom 28 with preferably a continuous sidewall 30 upstanding therefrom. The continuous sidewall 30 preferably has an annular lip 38 projecting in flange-like fashion from the upper end thereof and a substantially oval cross-section. The cooking unit 14 is adapted to be at least partially received within the heating unit 12 with the annular lip 38 of the cooking unit 14 preferably engaging the annular lip 22 of the heating unit 12, supporting the cooking unit 14 within the heating unit 12. Preferably, the annular lip 38 further defines a pair of handle portions 38(a) and 38(b) to facilitate lifting the cooking unit 14. The cooking unit 14 is preferably made of ceramic with a coating of conventional glazing compound.

The thermal and heat retaining properties of the ceramic cooking unit 14 allow it to conduct heat from the heating chamber 20 through the sidewall 30. This provides even heating throughout the unit 14.

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As shown in FIG. 3, an alternative embodiment of the appliance 10 includes a cooking unit 39 having a sidewall 40 and a substantially circular cross-section. This embodiment is preferably adapted to fit within a heating unit having a complementary circular heating chamber. This cooking unit 39 is used in an embodiment of the present invention shown in FIG. 4.

In use, the heating unit 12 is provided with a first cooking unit 39. The heating element 24 (not shown) may be powered on and off as necessary to supply heat at a maintained temperature to the cooking unit 39 and the heating chamber via a programmable control 200. The control 200 preferably includes a circuit board housing 210, a control panel 220, and an insulation shield 222 assembled together for attachment to the outer sidewall 18 of the heating unit 12. The interior of the housing 210 contains a printed circuit board 254 (shown in FIG. 7) containing electronic components of the control.

As shown in FIGS. 5 and 6, the housing 210 preferably includes a control panel user interface 224 located on an inclined front surface of the housing 210. Preferably, the housing 210 and insulation shield 222 are made from a thermoplastic material such as polypropylene. A pair of side walls 226, a top wall 228, and bottom wall 230 are preferably located adjacent the control panel 224 and support the control panel 224 in an inclined position away from the front of the cooking appliance 10. This gives the user access to the control panel 224, and also locates the controls and componentry within the housing 210 away from a significant amount of the heat generated by the appliance 10. The printed circuit board 254 may be mounted via threaded screws 255 to rearwardly projecting screw receiving portions 258 on the rear side of the housing 210.

The control panel 224 includes a plurality of indicator lights, such as LEDs 262, spaced on the front panel 224. As is well-known in the art, a variety of other indicator devices may be provided, including digital readouts, audible alarms, liquid crystal displays, incandescent lamps or fluorescent readouts. Preferably, the control panel 224 also includes a plurality of cantilevered portions 264 and 266 as shown in FIG. 5. The cantilevered portions 264, 266 preferably include rearwardly projecting fingers 268 (shown in FIG. 7) which translate the depression of the portions 264, 266 toward the rear portion of the housing 210. The fingers 268 are preferably used to depress pushbutton switch portions located on the circuit board 254. A water-impermeable label membrane may be applied over the front of the control panel 224 to label the indicators 262 and cantilevered portions 264 and 266 for the user. The membrane may also protect the front control panel 224 from damage from spilled foods or liquids and facilitate cleaning.

To further protect the electronic componentry within the housing 210 from the heat generated by the appliance 10, the annular shield member 222 is preferably sized for interposition between the heating unit 12 and the housing 210. In particular, as shown in FIGS. 5 and 6, the shield 222 includes a top wall 232, a pair of side walls 234, and a bottom wall 236. The shield 222 acts as a ventilated spacer to hold the electronic components and the housing 210 at a distance away from sidewall of the cooking unit 12.

In order to dissipate heat that may otherwise be retained between the cooking unit 12 and the rear of the housing 210, an air circulation space is provided within the shield. In particular, as shown in the side cutaway view of FIG. 7, the air space 240 behind the shield 222 may vent warmer air out through an upper elongated slot 242 defined within the top

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wall 232 of the shield 222. Likewise, an elongated slot 244 is defined into the air space 240 in the bottom wall 236 of the shield 222. Heated air may thus escape through the top elongated slot 242 and cooler air may enter the air space 240 through the bottom elongated slot 244. As shown in FIG. 7, the shield 222 also preferably defines a rearwardly projecting cylindrical flange 246 that extends into the outer wall 18 to allow passage of control and power wiring between the interior of the heating unit 12 and the interior of the housing 210.

In a similar fashion, air circulation is promoted through the housing 210 through a set of openings, preferably defined between the upper portion and the bottom of the housing 210. In particular, a plurality of openings 250 are defined within the bottom wall 230 of the housing 210. An elongated upper slot 252 is provided on the front face 224 of the housing 210. This allows air to freely circulate behind the control panel 224 and assist in the dissipation of heat from the circuit board 254 and its electronic componentry within the housing 210. Preferably, a heat sink 256 is provided as shown in FIG. 7 and positioned between the circuit board 254 and the front panel 224 inside the housing 210. The sink 256 preferably includes a plurality of openings defined therein to allow air to circulate between the openings 250 and 252 and through and around the heat sink 256 to dissipate additional heat therefrom. Also shown is the relative position of cooking unit 14.

FIGS. 8 and 9 show a detailed view of the heat sink 256. Preferably, the heat sink is machined from 0.063 inch thick 3003-O anodized aluminum. The heat sink 256 is preferably bent at a 160 degree angle between a bottom flange portion 256a and an upper portion 256b. A centrally located retaining tab portion 256c is bent parallel with the lower portion 256a, and the portions 256a and 256c are used for attachment of the heat sink 256 to the rear side of the housing 210 interior via the rearwardly projecting screw receiving portions 258. To maximize the dissipation of heat, a plurality of winged sections 257 and 259 are provided on the heat sink 256 and extend outwardly from a center portion 256a of the heat sink 256. A plurality of openings are defined through the heat sink 256 to allow the fingers 258 of the control panel cantilevered portions 264, 266 to project through the heat sink and contact the circuit board 254 at the rear of the housing 210. The openings 251 also facilitate cooling air flow through and past the heat sink 256 to further dissipate heat therefrom.

The circuit board 254 mounts circuitry and logic allowing the user of the appliance 10 to electronically control and program cooking cycles and temperature. A schematic diagram of the electronic circuitry and components is shown in FIG. 10. The diagram shows a preferred exemplary circuit incorporating preferred components as utilized in the preferred embodiment of the present invention. One skilled in the art will recognize that the componentry illustrated herein is exemplary only and that many other components may be substituted to achieve the functions described herein. FIG. 10 includes labels for each of the components of the circuit, and only major components will be described herein.

First, as shown in the diagram, the preferred circuit 300 is preferably built around an EPROM/ROM-based CMOS microprocessor controller 302, such as the PIC16CR54C RISC CPU manufactured by Microchip Technology, Inc. The chip output preferably includes circuited drivers for 6 LED indicators 262 (labeled D3-D8) as shown. These LED indicators may be assigned labels as follows:

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LED	Indicates
D3	On
D4	WARM
D5	4 HOUR
D6	6 HOUR
D7	8 HOUR
D8	10 HOUR

Two momentary pushbutton contact switches S1 and S2 are used to trigger the "On" and "Cook" features, respectively, as will be described in the cooking procedure below. Of course, other indicators and switches may be substituted. Note that while examples are given, the circuitry may be implemented in numerous ways, as is well-known in the art, to accomplish the varying programming modes described below.

The temperature of the cooking appliance is measured using a thermistor 310, which is connected externally of the circuit board to the underside of the bottom of the heating chamber. A retention clip 320, shown in FIG. 7, is utilized to hold the thermistor in thermal contact with the bottom 16. In a preferred embodiment, the appliance uses a model USX1732 thermistor manufactured by U.S. Sensor, Inc.

Triac 304, which is preferably a logic Triac Model L4008L6-ND manufactured by Digi-Key, Inc., is utilized to switch the power supplied to the heating elements of the appliance. Preferably, the Triac is of an isolated tab type and includes a heat sink tab that is fastenable to the heat sink 256 shown in FIGS. 8 and 9. Preferably, the Triac is mounted separately to one of the mounting holes on the center portion 256a of the heat sink 256 so that the tab is in thermal contact with the heat sink 256 to dissipate heat generated from its current controlling function. Most of the other components of the circuit 300 are mounted on a conventional printed circuit board 254.

FIG. 11 shows the wiring of the external Triac 304 in relation to the circuit board 254 and heating elements 24. As shown in the Figure, the heating elements 24 are in thermal contact with and wrapping around the interior sidewall 17 of the heating unit.

The operation of the appliance 10 is as follows. The programmable circuitry 300 allows the user to set both the temperature and desired time for cooking. The functions of the switches S1 and S2, which are activatable via the cantilevered portions 264 and 266 of the control panel 224, are as follows:

S1. OFF pushbutton—turns the appliance 10 off.

S2. COOK pushbutton—subsequent pushes of the button cycle through 4 hour, 6 hour, 8 hour and 10 hour cook times.

When the unit is plugged in, the power "on" indicator flashes. The user then pushes the COOK button (switch S2) to set the temperature and cooking time. As the user pushes the COOK switch S2, the LED's D5–D8 illuminate to indicate the corresponding time setting as follows.

LEDs

D3. POWER—on when appliance 10 is in cook or warm modes.

D5. 4 HOUR—on when appliance is in 4-hour cook mode

D6. 6 HOUR—on when appliance is in 6-hour cook mode

D7. 8 HOUR—on when appliance is in 8-hour cook mode

D8. 10 HOUR—on when appliance is in 10-hour cook mode

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D4. WARM—on when appliance is in half-power mode. Thus, subsequent pushes of the COOK switch S2 activate different cooking modes, as shown by the 6 HOUR, 8 HOUR and 10 HOUR LEDs 262 on the control panel 224. If the COOK switch S2 is pressed in the 10 HOUR mode, the control 200 recycles to the 4 HOUR cooking mode, and its indicator.

In general, full power will be applied to the heating element 24 until the time corresponding to the illuminated LED elapses, after which the power to the heating element 24 is reduced by half, the WARM indicator illuminates and all cook time indicators extinguish. The choices of operation are: 4 or 6 hours on a HI temperature, and 8 to 10 hours on a lower temperature setting. Once the user selects the desired setting, the appliance 10 starts the cooking operation. Once the time setting has expired, the appliance 10 automatically reduces power to the heating element 24 to put the unit in a WARM setting. The unit will stay in the WARM setting until the user pushes the OFF button or unplugs the unit. Of course, other programming schemes are possible.

Preferably, the user cannot set the unit initially in the WARM setting. The system will only go to WARM after one of the time functions has expired. This avoids possible food safety problems that may be associated with cooking food only on the WARM setting. Pressing the OFF switch S1 any time the unit is on preferably removes power from the heating element 24 and extinguishes all indicator LEDs 262.

In another embodiment, the slow-cooker appliance utilizes four push-button switches, rather than two, to set times and temperatures for cooking. An exemplary control panel is depicted in FIG. 12, with control circuitry in FIG. 13. Four momentary pushbutton contact switches 227, 229, 231, 233 are used to trigger various power and setting functions as will be described in the cooking procedure below. Of course, other numbers or types of indicators and switches may be substituted as well. FIG. 13 shows circuitry applicable to such an embodiment, incorporating controller 302, external temperature element 310, digital readout 57, and Power LED 263 and Timer LED 265. The Power LED indicates power is present at the microprocessor controller and the Timer LED indicates that the Timer function is on and working.

The operation of the appliance is as follows. The programmable circuitry allows the user to set both the temperature and the desired cooking time. The functions of the switches 227, 229, 231, 233 on an alternative embodiment of a control panel user interface 225, are as follows:

227. ON/OFF power pushbutton—turns the appliance on and off.

229. TIMER pushbutton—activates stepped timer.

231. UP pushbutton—increases displayed numerical value.

233. DOWN pushbutton—decreases displayed numerical value.

When the unit is plugged in, the unit defaults to 150-degrees F. as shown on the digital display 57. The user may adjust the desired cooking temperature in 25-degree increments using the UP 231 button or the DOWN button 233, with 150 degrees Fahrenheit as a minimum temperature. Once the user has selected the specific temperature, the appliance will start the cooking process.

The user may also select the TIMER mode by pressing the TIMER button 229. In TIMER mode, the controller defaults to 4 hours. The user can use the UP or DOWN controls to increase or decrease the time in 15-minute increments. Once the time is set, the controller 302 will count down the time remaining for cooking in 1 minute increments until the unit

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"times out". At that time, the power is shut off from the heating element.

In all modes, the temperature is read periodically by the thermistor or other temperature element and relayed to the controller. The reading is checked at 4-second intervals. If the temperature is above or equal to the set point, power is removed. If it is below the set point, power is applied to the heating element 32. Of course, the circuitry can be modified as desired to achieve various program methods and modes.

Another embodiment of the slow cooker appliance adds a piezobuzzer to the circuitry. A piezobuzzer is simply an electrically-activated buzzer that can be programmed to emit a sound at desired moments. In one embodiment, a piezobuzzer may be installed as an output 315, controlled by the microprocessor controller 302, as shown in FIG. 13, and programmed to emit a sound when desired. In one embodiment, the buzzer may beep to provide feedback to a user when a pushbutton is pushed. The slow cooker may also be programmed to emit a sound to indicate the end of the cooking time. The buzzer may also be used to emit sounds at other desired times.

It is intended that the foregoing description illustrates rather than limits this invention, and that it is the following claims, including all equivalents, which define this invention. Of course, it should be understood that a wide range of changes and modifications may be made to the embodiments described above. Accordingly, it is the intention of the applicants to protect all variations and modifications within the valid scope of the present invention. It is intended that the invention be defined by the following claims, including all equivalents.

What is claimed is:

1. A programmable slow-cooker appliance, comprising:
 - a heating unit;
 - a cooking unit adapted to fit at least partially within the heating unit;
 - a controller housing fixedly mounted to an outside of the heating unit; and
 - a programmable controller mounted to the housing to control the heating unit, wherein said housing is configured to convect heat away from the controller.
2. The slow-cooker appliance of claim 1, wherein the housing is an enclosure for at least a portion of the controller.
3. The slow-cooker appliance of claim 2, wherein the controller housing insulates the controller from the heating unit.
4. The slow-cooker appliance of claim 3, wherein the housing further comprises a heat shield, and the heat shield is made from a material selected from at least one of thermoplastics and insulating materials.
5. The slow-cooker appliance of claim 4, wherein the housing defines ventilation openings configured to allow air to flow into and out of said housing.

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6. The slow-cooker appliance of claim 5, wherein the housing includes at least a pair of slots defined in an upper and lower part of the housing to define airflow thru the slots and behind the controller.

7. The slow-cooker appliance of claim 1, wherein the controller further comprises control elements and a display.

8. The slow-cooker appliance of claim 7, wherein the control elements are selected from the group consisting of a control panel, push-buttons, switches, and a digital readout.

9. The slow-cooker appliance of claim 1, further comprising a temperature measuring device in communication with said controller.

10. The slow-cooker appliance of claim 1, further comprising a piezobuzzer.

11. A control housing for a slow cooker heating unit, said housing comprising:

- a front wall;
- a bottom wall defining at least one lower opening, the bottom wall attached to the front wall;
- a top wall defining at least one upper opening, the top wall attached to the front wall; and
- a circuit board mounted behind the front wall, the circuit board apart from a wall of the heating unit.

12. The control housing of claim 11, further comprising a heat sink between the circuit board and the front wall.

13. A method of using a programmable slow-cooker appliance, the method comprising:

- providing a food item;
- placing the food item into a cooking unit of the slow-cooker appliance;
- selecting a cooking temperature and time using a programmable controller mounted to a housing fixedly mounted to a heating unit; and
- changing the heating unit temperature automatically to a lower temperature after the selected time.

14. The method of claim 13, further comprising notifying a user with illuminated indicators that the slow-cooker appliance is powered and that the timer is active.

15. The method of claim 13, wherein the temperature is set by default upon selection of a cooking time.

16. The method of claim 13, wherein the time is selected from the group consisting of 4 hours, 6 hours, 8 hours and 10 hours and the temperature is selected from the group consisting of high and low.

17. The method of claim 13, wherein the temperature and time are set in increments.

18. The method of claim 13, further comprising cooling the electronic circuitry of the programmable controller via a chimney effect.

19. The method of claim 13, further comprising emitting a sound.

* * * * *



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(12) **United States Patent**
DeCobert et al.

(10) Patent No.: **US 6,740,855 B1**
(45) Date of Patent: ***May 25, 2004**

(54) **PROGRAMMABLE SLOW-COOKER APPLIANCE**

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(73) Assignee: **The Holmes Group, Inc.**, Milford, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/386,276**

(22) Filed: **Mar. 11, 2003**

Related U.S. Application Data

(63) Continuation of application No. 09/802,174, filed on Mar. 8, 2001, now Pat. No. 6,573,483.

(60) Provisional application No. 60/196,273, filed on Apr. 5, 2000, and provisional application No. 60/189,443, filed on Mar. 15, 2000.

(51) Int. Cl.⁷ **H05B 1/02**

(52) U.S. Cl. **219/506; 219/429; 219/435; 219/436; 219/494; 99/340**

(58) Field of Search **219/506, 494, 219/497, 501, 505, 430-439, 429; 99/340**

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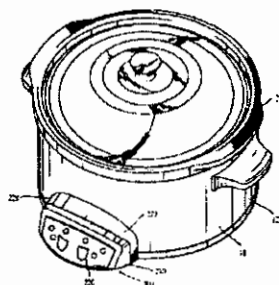
Primary Examiner—Mark Paschall

(74) Attorney, Agent, or Firm—Hoffmann & Baron, LLP; Francis E. Marino

(57) **ABSTRACT**

A programmable slow-cooker appliance, in which a user sets a time and temperature for cooking a food item. A programmable controller prevents the unit from being used solely as a "keep warm" appliance, and a unique design allows cooling of the controller during cooking.

42 Claims, 12 Drawing Sheets

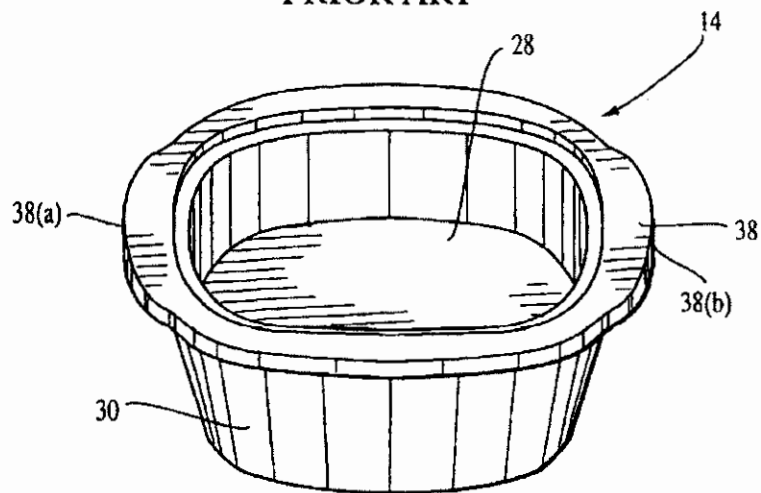
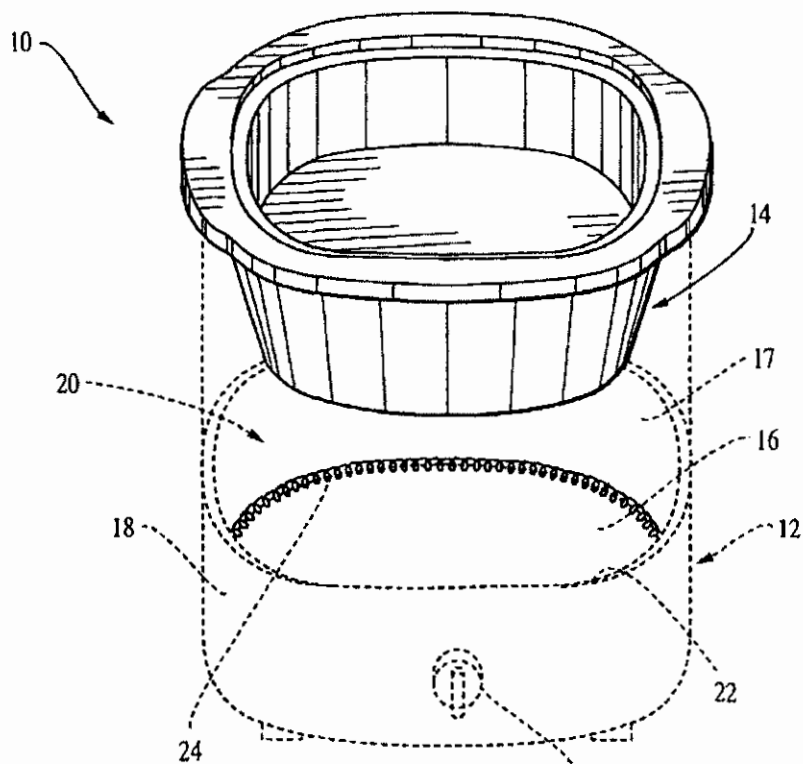


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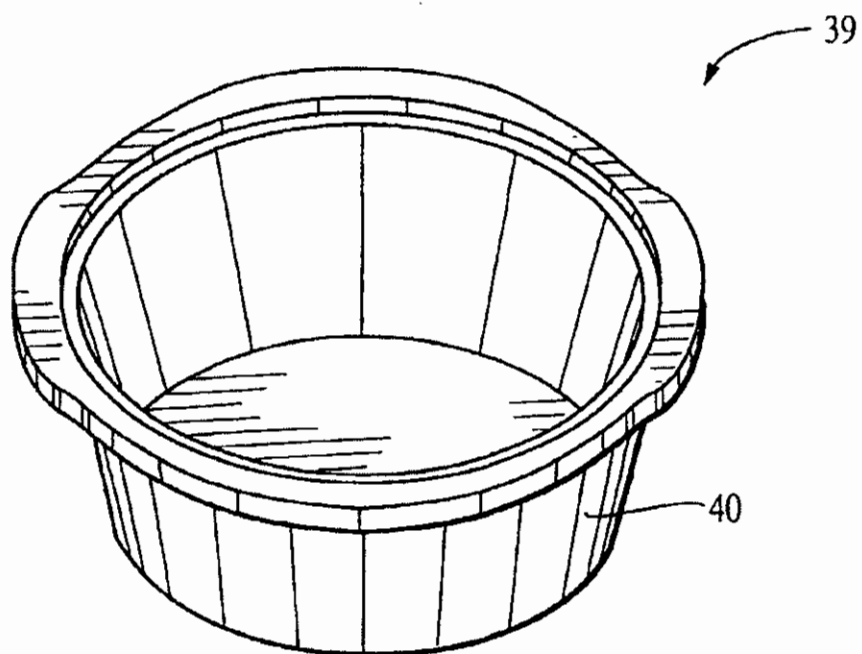


FIG. 3
PRIOR ART

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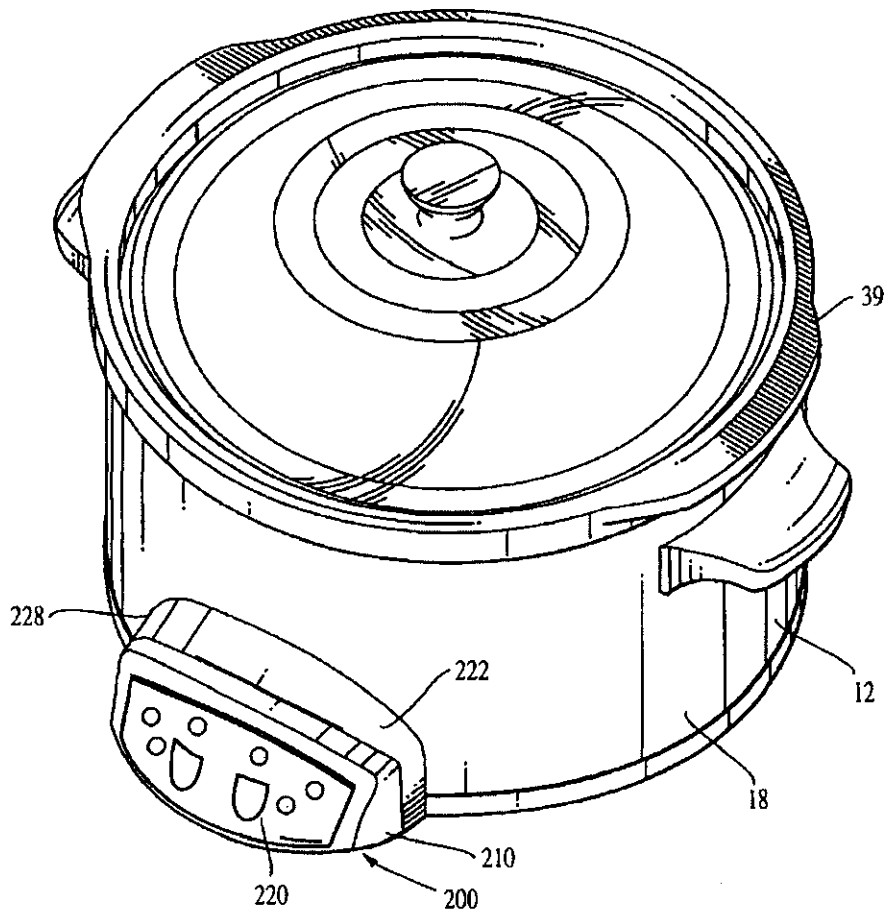


FIG. 4

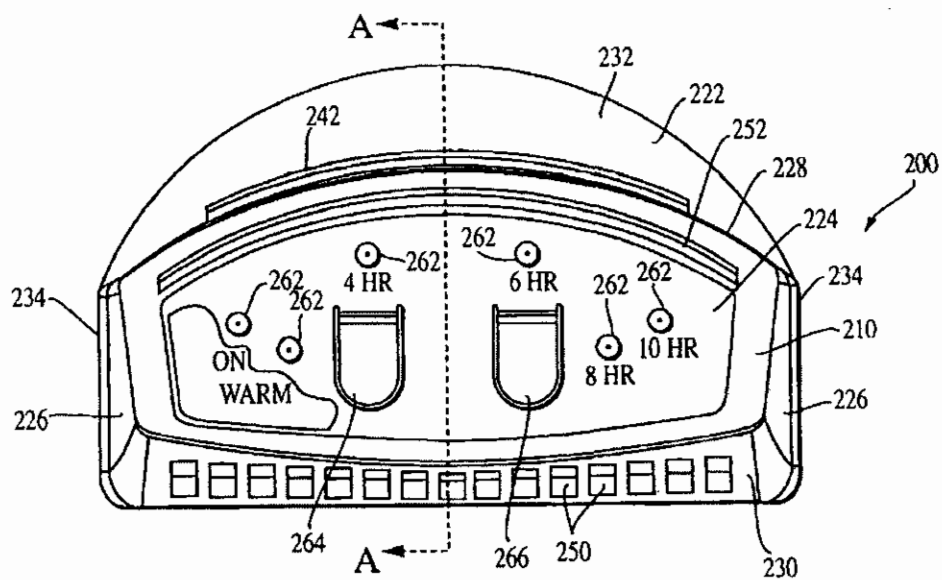


FIG. 5

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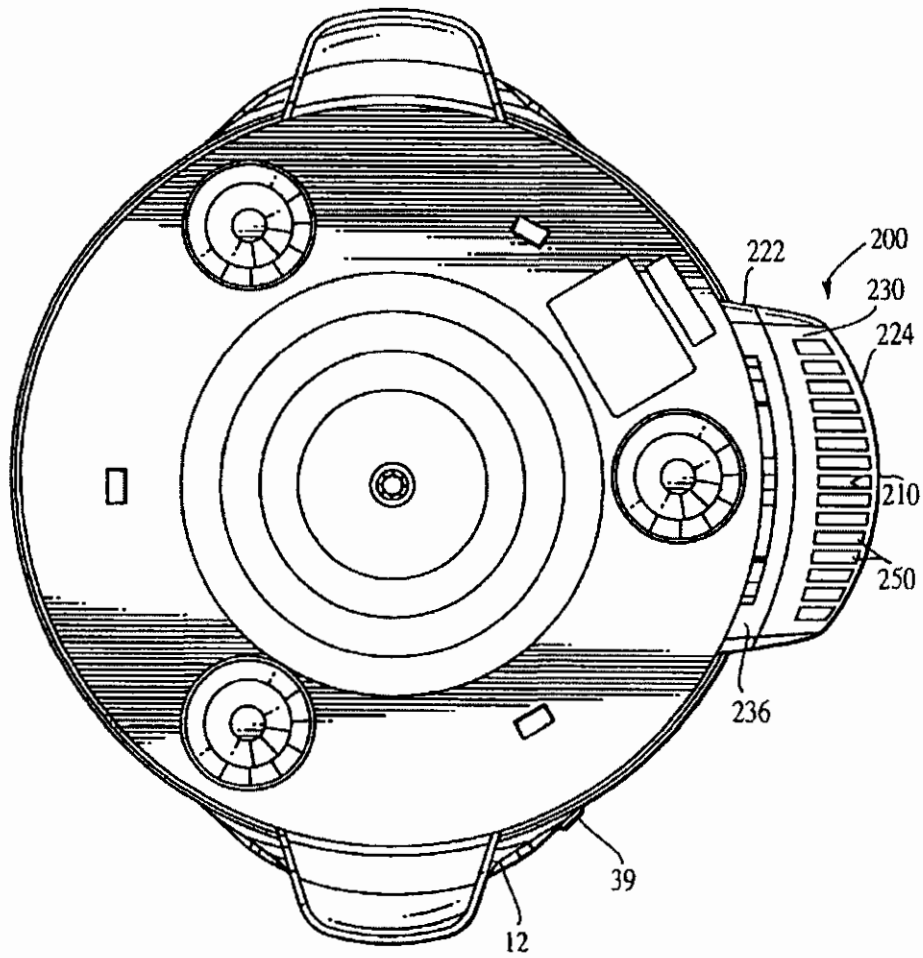


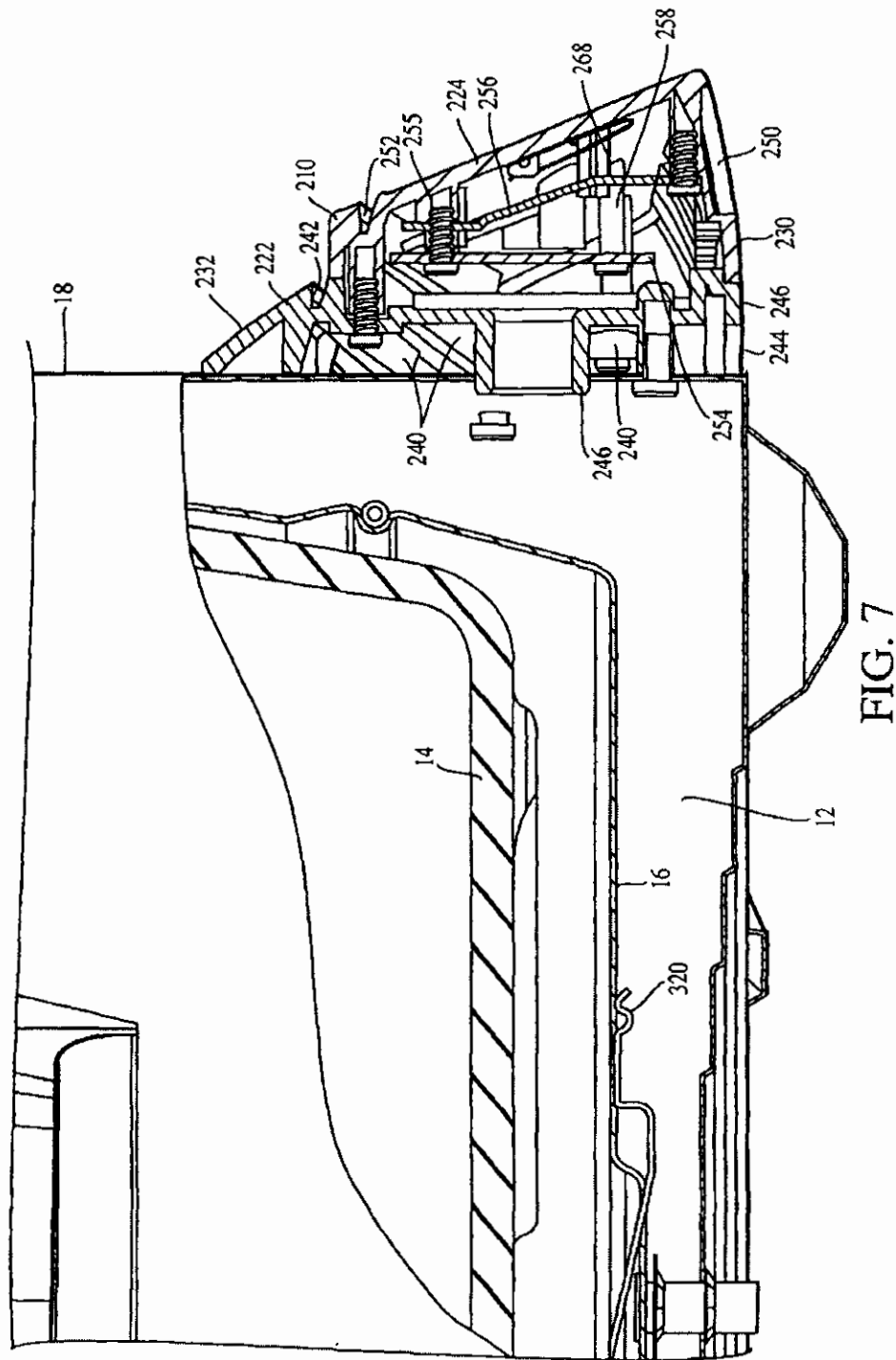
FIG. 6

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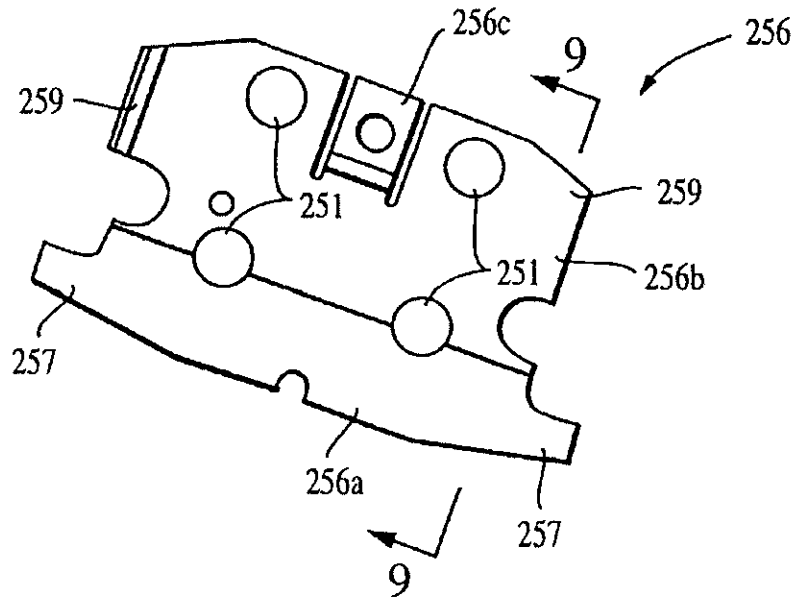


FIG. 8

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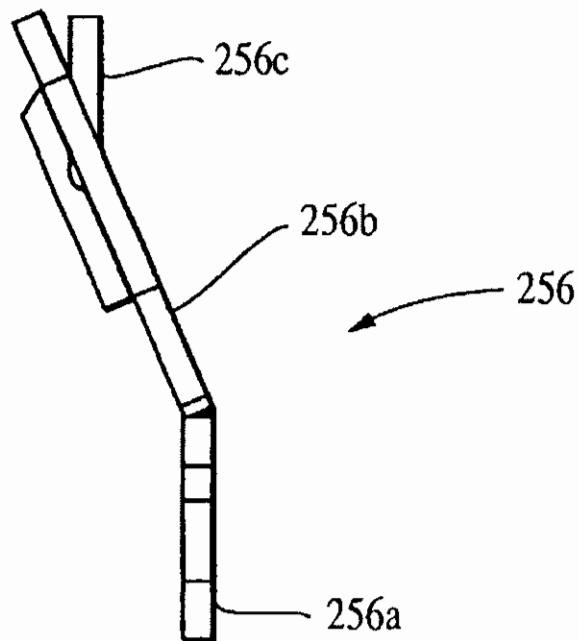


FIG. 9

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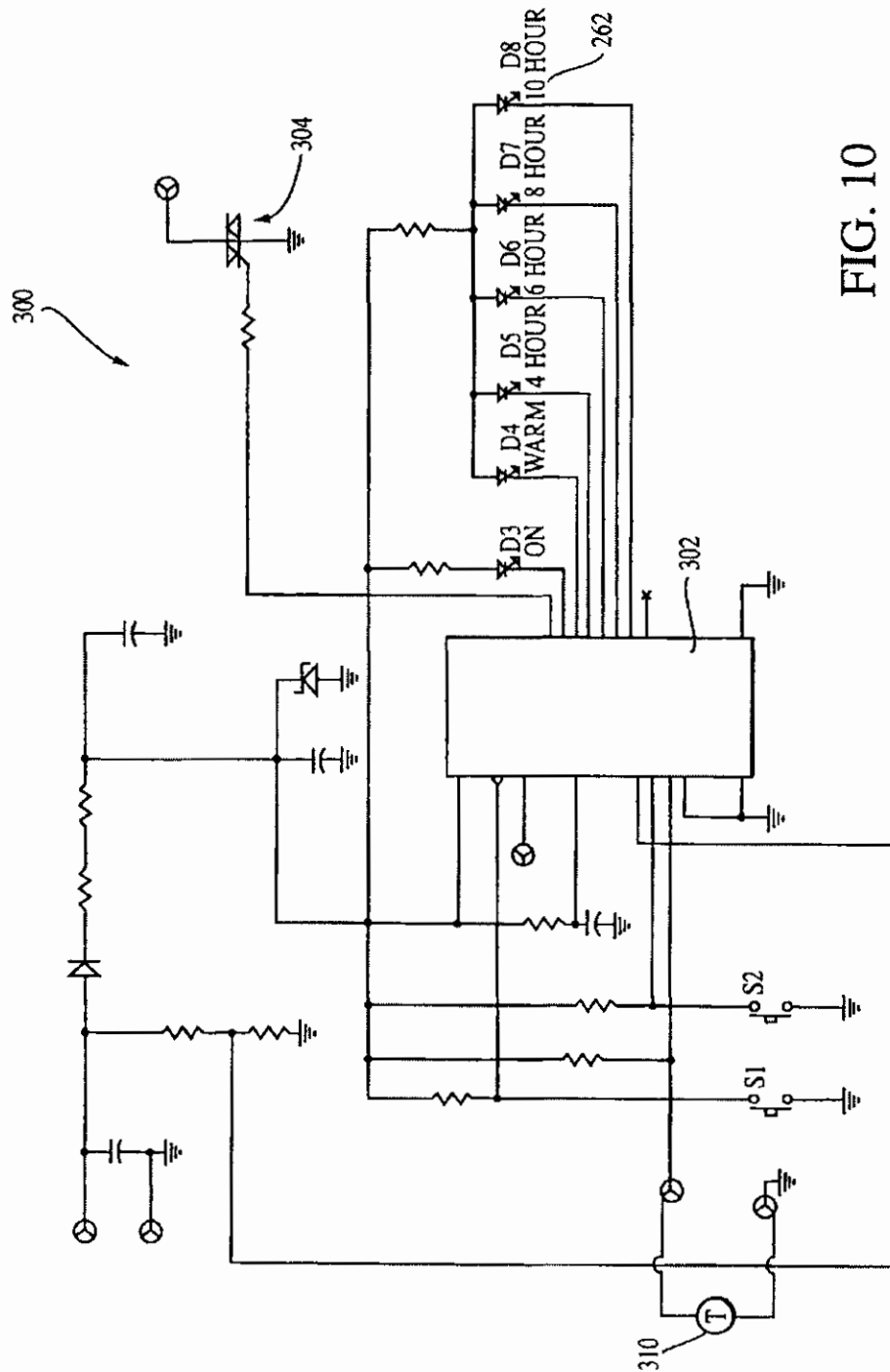


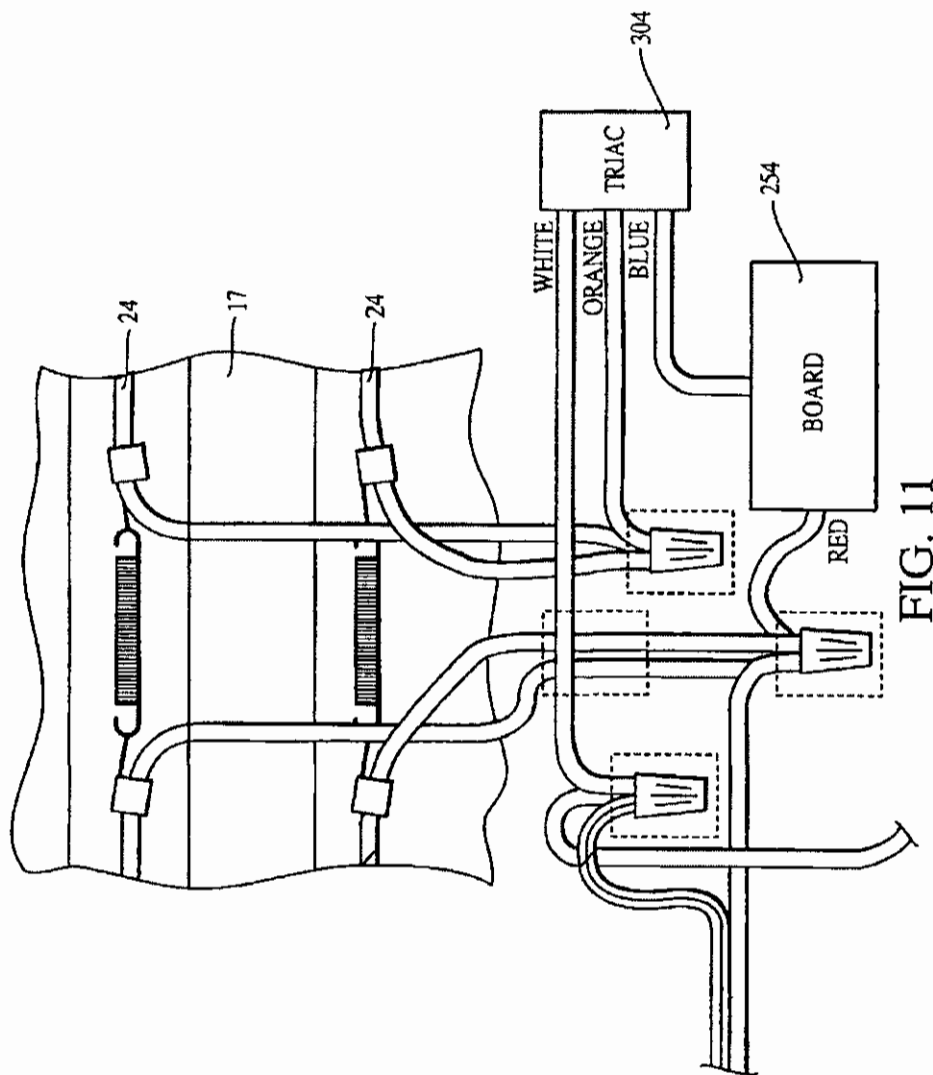
FIG. 10

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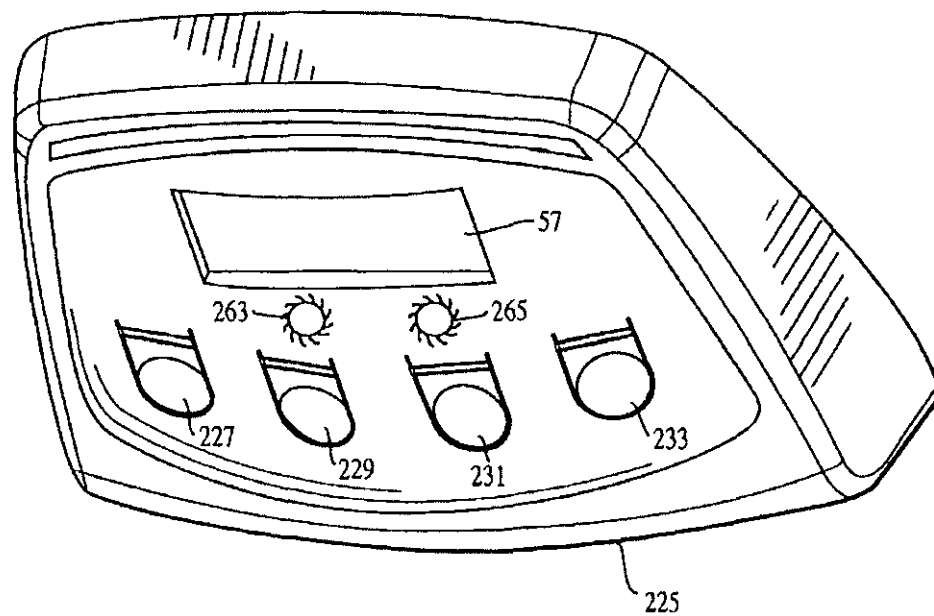


FIG. 12

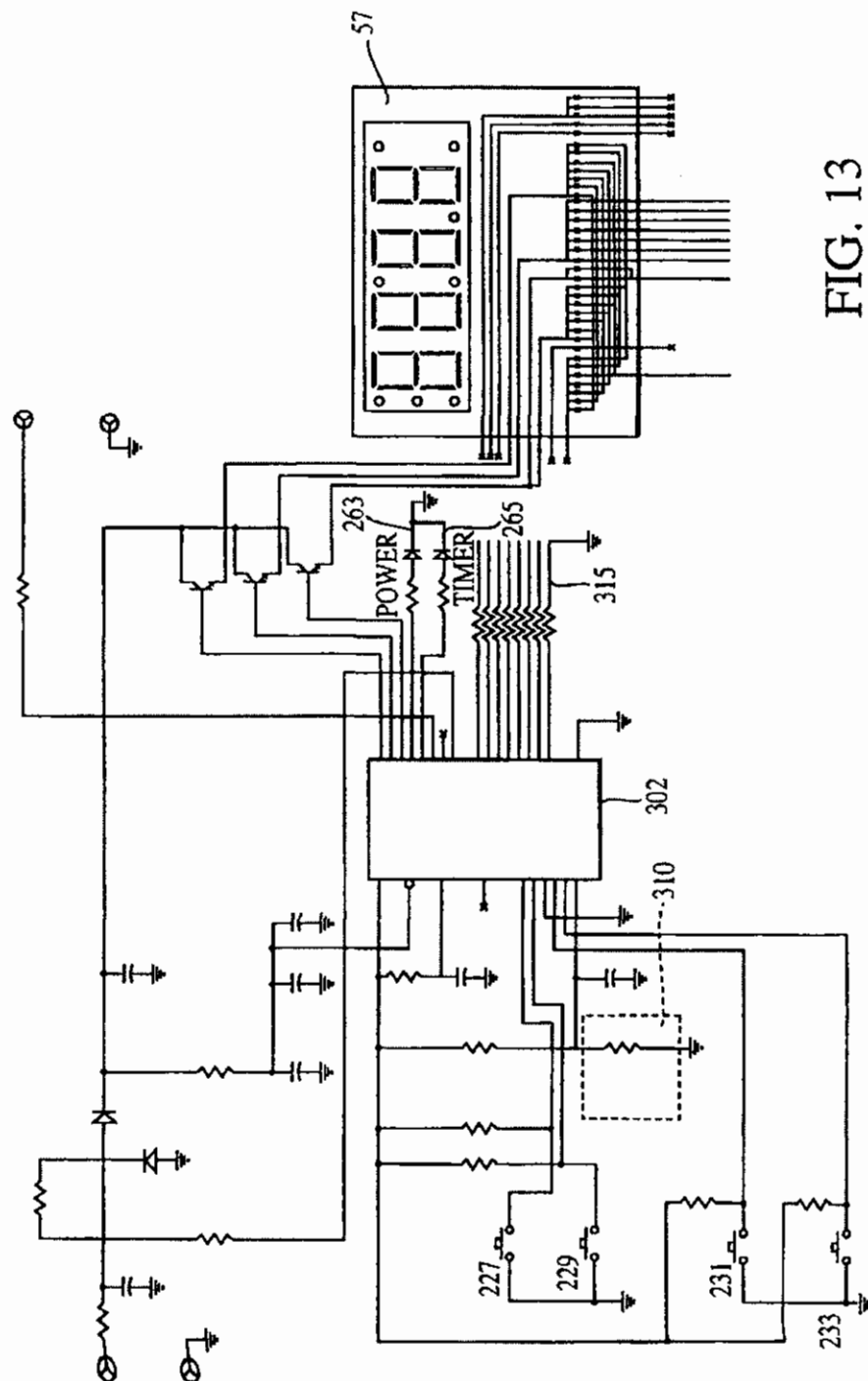


FIG. 13

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**PROGRAMMABLE SLOW-COOKER
APPLIANCE**

This application is a continuation of application Ser. No. 09/802,174, filed Mar. 8, 2001, (pending), which is hereby incorporated by reference herein.

This application claims priority to Provisional Application No. 60/189,443, filed Mar. 15, 2000, and to Provisional Application No. 60/196,273, filed Apr. 5, 2000.

This application also claims priority to U.S. patent application Ser. No. 09/802,174, filed Mar. 8, 2001, now U.S. Pat. No. 6,573,483 the entirety of which is incorporated herein.

BACKGROUND OF THE INVENTION

Time and convenience are in short supply for homemakers wishing to supply a home-cooked meal to family members. Some appliances, such as slow-cooker appliances, attempt to meet this need by providing all-day cooking while a homemaker is absent. Such appliances, however, tend to be of the type where only one temperature and all day cooking is possible, regardless of the food item, and thus potentially subjecting the food item to over- or under-cooking. Another option may be to use a cooking unit with a controller, where a user may set a time or temperature desired. These units, however, tend to be quite a bit larger and more expensive than slow-cooker appliances. If these units are of more reasonable size, they also suffer because the controller inevitably must be placed near the heating element.

What is needed is a cooking appliance in which the user retains control over the time and temperature of cooking, but which is small enough to be convenient. What is needed is a slow-cooker unit in which the controller does not become overheated and damaged by the heating element.

SUMMARY OF THE INVENTION

One embodiment of invention is a programmable slow-cooker appliance, including a heating unit, which includes upstanding sidewalls and a bottom wall. The sidewalls and bottom encompass a heating area. The appliance includes a heating element mounted on the inner surface of the interior wall of the heating unit. In one embodiment, the cooking area may also encompass a cooking unit inside the heating unit, suitable for holding food to be cooked. The appliance includes a programmable controller mounted thereto via a controller housing, which acts to insulate the controller from the heat of the appliance, preferably via a unique system of ventilation. The housing utilizes ventilation holes on its bottom and top to encourage a chimney effect, in which air from the surroundings is drawn through the housing. This air cools the controller, and the air is then exits from ventilation holes near the top of the housing, convecting heat away from the controller.

Another aspect of the invention is a method of using the programmable controller to ensure that food is cooked according to the desires of a user. The user provides a food item and places the food item into the slow-cooker appliance, as described above. The user sets a cooking time and temperature for the programmable slow-cooker unit, using the controls to set both the time and the temperature. The cooking time according to one embodiment may not be set less than four hours, and the temperature may not be set for less than 150 degrees Fahrenheit (66 degrees Celsius). This prevents a user from accidentally setting the cooker to a "warm" temperature, in which food would only be warmed but not cooked thoroughly before consumption. In one embodiment, if the user sets no time or temperature, but

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merely turns the cooker on, the cooker defaults to a particular time and temperature, set by the user or the factory, such as a default setting of four hours and 175 degrees Fahrenheit or eight hours and 150 degrees Fahrenheit.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an embodiment of a prior art slow-cooker appliance having an oval shape that may be utilized in the present invention;

FIG. 2 is a perspective view of a prior art embodiment of a cooking unit 14 which may be utilized with the appliance of FIG. 1;

FIG. 3 is a perspective view of a prior art cooking unit 39 similar to that shown in FIG. 2, but having a circular shape;

FIG. 4 is a perspective view of a slow cooker appliance incorporating the present invention;

FIG. 5 is a detailed plan view of a portion of the control 200 of the embodiment of FIG. 4;

FIG. 6 is a bottom plan view of the embodiment of FIG. 4;

FIG. 7 is a side cutaway view of the embodiment of FIG. 4;

FIG. 8 is a plan view of a heat sink 256 as utilized in the embodiment of FIG. 4;

FIG. 9 is a side view taken along a line 9—9 of FIG. 8;

FIGS. 10 and 13 are schematic circuit diagrams showing the circuitry and components implemented in preferred embodiments;

FIG. 11 is a wiring diagram showing some of the electric componentry of the preferred embodiment; and

FIG. 12 is an embodiment of the front panel.

**DETAILED DESCRIPTION OF THE
PREFERRED EMBODIMENTS**

Referring to FIG. 1, one prior art embodiment of a food-heating slow-cooker appliance 10 is shown. The appliance 10 preferably comprises a heating unit 12 and a cooking unit 14. An exemplary slow cooker appliance 10 may be a Crock-Pot® Slow Cooker made by The Rival Division of The Holmes Group® of Milford, Mass. The heating unit 12 preferably has a bottom 16 and a continuous outer sidewall 18. The bottom 16 and an interior sidewall 17 define a well-like heating chamber 20 having an oval cross-section, and the interior sidewall 17 defines an annular lip 22 at an upper edge of the outer sidewall 18 and the interior sidewall 17. The heating chamber 20 has a heating element 24 disposed therein and mounted to the heating unit 12, either under the bottom 16 or additionally between the outer sidewall 18 and the interior sidewall 17. A control switch 26 is conventionally used to provide electricity to the heating element 24. The heating element 24 functions to heat the cooking unit 14 via the heating chamber 20.

As shown in FIG. 2, the cooking unit 14 has a bottom 28 with preferably a continuous sidewall 30 upstanding therefrom. The continuous sidewall 30 preferably has an annular lip 38 projecting in flange-like fashion from the upper end thereof and a substantially oval cross-section. The cooking unit 14 is adapted to be at least partially received within the heating unit 12 with the annular lip 38 of the cooking unit 14 preferably engaging the annular lip 22 of the heating unit 12, supporting the cooking unit 14 within the heating unit 12. Preferably, the annular lip 38 further defines a pair of handle portions 38(a) and 38(b) to facilitate lifting the cooking unit 14. The cooking unit 14 is preferably made of ceramic with a coating of conventional glazing compound.

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The thermal and heat retaining properties of the ceramic cooking unit 14 allow it to conduct heat from the heating chamber 20 through the sidewall 30. This provides even heating throughout the unit 14.

As shown in FIG. 3, an alternative embodiment of the appliance 10 includes a cooking unit 39 having a sidewall 40 and a substantially circular cross-section. This embodiment is preferably adapted to fit within a heating unit having a complementary circular heating chamber. This cooking unit 39 is used in an embodiment of the present invention shown in FIG. 4.

In use, the heating unit 12 is provided with a first cooking unit 39. The heating element 24 (not shown) may be powered on and off as necessary to supply heat at a maintained temperature to the cooking unit 39 and the heating chamber via a programmable control 200. The control 200 preferably includes a circuit board housing 210, a control panel 220, and an insulation shield 222 assembled together for attachment to the outer sidewall 18 of the heating unit 12. The interior of the housing 210 contains a printed circuit board 254 (shown in FIG. 7) containing electronic components of the control.

As shown in FIGS. 5 and 6, the housing 210 preferably includes a control panel user interface 224 located on an inclined front surface of the housing 210. Preferably, the housing 210 and insulation shield 222 are made from a thermoplastic material such as polypropylene. A pair of side walls 226, a top wall 228, and bottom wall 230 are preferably located adjacent the control panel 224 and support the control panel 224 in an inclined position away from the front of the cooking appliance 10. This gives the user access to the control panel 224, and also locates the controls and componentry within the housing 210 away from a significant amount of the heat generated by the appliance 10. The printed circuit board 254 may be mounted via threaded screws 255 to rearwardly projecting screw receiving portions 258 on the rear side of the housing 210.

The control panel 224 includes a plurality of indicator lights, such as LEDs 262, spaced on the front panel 224. As is well-known in the art, a variety of other indicator devices may be provided, including digital readouts, audible alarms, liquid crystal displays, incandescent lamps or fluorescent readouts. Preferably, the control panel 224 also includes a plurality of cantilevered portions 264 and 266 as shown in FIG. 5. The cantilevered portions 264, 266 preferably include rearwardly projecting fingers 268 (shown in FIG. 7) which translate the depression of the portions 264, 266 toward the rear portion of the housing 210. The fingers 268 are preferably used to depress pushbutton switch portions located on the circuit board 254. A water-impermeable label membrane may be applied over the front of the control panel 224 to label the indicators 262 and cantilevered portions 264 and 266 for the user. The membrane may also protect the front control panel 224 from damage from spilled foods or liquids and facilitate cleaning.

To further protect the electronic componentry within the housing 210 from the heat generated by the appliance 10, the annular shield member 222 is preferably sized for interposition between the heating unit 12 and the housing 210. In particular, as shown in FIGS. 5 and 6, the shield 222 includes a top wall 232, a pair of side walls 234, and a bottom wall 236. The shield 222 acts as a ventilated spacer to hold the electronic components and the housing 210 at a distance away from sidewall of the cooking unit 12.

In order to dissipate heat that may otherwise be retained between the cooking unit 12 and the rear of the housing 210,

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an air circulation space is provided within the shield. In particular, as shown in the side cutaway view of FIG. 7, the air space 240 behind the shield 222 may vent warmer air out through an upper elongated slot 242 defined within the top wall 232 of the shield 222. Likewise, an elongated slot 244 is defined into the air space 240 in the bottom wall 236 of the shield 222. Heated air may thus escape through the top elongated slot 242 and cooler air may enter the air space 240 through the bottom elongated slot 244. As shown in FIG. 7, the shield 222 also preferably defines a rearwardly projecting cylindrical flange 246 that extends into the outer wall 18 to allow passage of control and power wiring between the interior of the heating unit 12 and the interior of the housing 210.

In a similar fashion, air circulation is promoted through the housing 210 through a set of openings, preferably defined between the upper portion and, the bottom of the housing 210. In particular, a plurality of openings 250 are defined within the bottom wall 230 of the housing 210. An elongated upper slot 252 is provided on the front face 224 of the housing 210. This allows air to freely circulate behind the control panel 224 and assist in the dissipation of heat from the circuit board 254 and its electronic componentry within the housing 210. Preferably, a heat sink 256 is provided as shown in FIG. 7 and positioned between the circuit board 254 and the front panel 224 inside the housing 210. The sink 256 preferably includes a plurality of openings defined therein to allow air to circulate between the openings 250 and 252 and through and around the heat sink 256 to dissipate additional heat therefrom. Also shown is the relative position of cooking unit 14.

FIGS. 8 and 9 show a detailed view of the heat sink 256. Preferably, the heat sink is machined from 0.063 inch thick 3003-0 anodized aluminum. The heat sink 256 is preferably bent at a 160 degree angle between a bottom flange portion 256a and an upper portion 256b. A centrally located retaining tab portion 256c is bent parallel with the lower portion 256a, and the portions 256a and 256c are used for attachment of the heat sink 256 to the rear side of the housing 210 interior via the rearwardly projecting screw receiving portions 258. To maximize the dissipation of heat, a plurality of winged sections 257 and 259 are provided on the heat sink 256 and extend outwardly from a center portion 256a of the heat sink 256. A plurality of openings are defined through the heat sink 256 to allow the fingers 258 of the control panel cantilevered portions 264, 266 to project through the heat sink and contact the circuit board 254 at the rear of the housing 210. The openings 251 also facilitate cooling air flow through and past the heat sink 256 to further dissipate heat therefrom.

The circuit board 254 mounts circuitry and logic allowing the user of the appliance 10 to electronically control and program cooking cycles and temperature. A schematic diagram of the electronic circuitry and components is shown in FIG. 10. The diagram shows a preferred exemplary circuit incorporating preferred components as utilized in the preferred embodiment of the present invention. One skilled in the art will recognize that the componentry illustrated herein is exemplary only and that many other components may be substituted to achieve the functions described herein. FIG. 10 includes labels for each of the components of the circuit, and only major components will be described herein.

First, as shown in the diagram, the preferred circuit 300 is preferably built around an EPROM/ROM-based CMOS microprocessor controller 302, such as the PIC16CR54C RISC CPU manufactured by Microchip Technology, Inc. The chip output preferably includes circuited drivers for 6

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LED indicators 262 (labeled D3–D8) as shown. These LED indicators may be assigned labels as follows:

LED	Indicates
D3	On
D4	WARM
D5	4 HOUR
D6	6 HOUR
D7	8 HOUR
D8	10 HOUR

Two momentary pushbutton contact switches S1 and S2 are used to trigger the “Off” and “Cook” features, respectively, as will be described in the cooking procedure below. Of course, other indicators and switches may be substituted. Note that while examples are given, the circuitry may be implemented in numerous ways, as is well-known in the art, to accomplish the varying programming modes described below.

The temperature of the cooking appliance is measured using a thermistor 310, which is connected externally of the circuit board to the underside of the bottom of the heating chamber. A retention clip 320, shown in FIG. 7, is utilized to hold the thermistor in thermal contact with the bottom 16. In a preferred embodiment, the appliance uses a model USX1732 thermistor manufactured by U.S. Sensor, Inc.

Triac 304, which is preferably a logic Triac Model L4008L6-ND manufactured by Digi-Key, Inc., is utilized to switch the power supplied to the heating elements of the appliance. Preferably, the Triac is of an isolated tab type and includes a heat sink tab that is fastenable to the heat sink 256 shown in FIGS. 8 and 9. Preferably, the Triac is mounted separately to one of the mounting holes on the center portion 256a of the heat sink 256 so that the tab is in thermal contact with the heat sink 256 to dissipate heat generated from its current controlling function. Most of the other components of the circuit 300 are mounted on a conventional printed circuit board 254.

FIG. 11 shows the wiring of the external Triac 304 in relation to the circuit board 254 and heating elements 24. As shown in the Figure, the heating elements 24 are in thermal contact with and wrapping around the interior sidewall 17 of the heating unit.

The operation of the appliance 10 is as follows. The programmable circuitry 300 allows the user to set both the temperature and desired time for cooking. The functions of the switches S1 and S2, which are activatable via the cantilevered portions 264 and 266 of the control panel 224, are as follows:

S1. OFF pushbutton—turns the appliance 10 off.

S2. COOK pushbutton—subsequent pushes of the button cycle through 4 hour, 6 hour, 8 hour and 10 hour cook times.

When the unit is plugged in, the power “on” indicator flashes. The user then pushes the COOK button (switch S2) to set the temperature and cooking time. As the user pushes the COOK switch S2, the LED’s D5–D8 illuminate to indicate the corresponding time setting as follows.

LEDs

D3. POWER—on when appliance 10 is in cook or warm modes.

D5. 4 HOUR—on when appliance is in 4-hour cook mode

D6. 6 HOUR—on when appliance is in 6-hour cook mode

D7. 8 HOUR—on when appliance is in 8-hour cook mode

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D8. 10 HOUR—on when appliance is in 10-hour cook mode

D4. WARM—on when appliance is in half-power mode
Thus, subsequent pushes of the COOK switch S2 activate different cooking modes, as shown by the 6 HOUR, 8 HOUR and 10 HOUR LEDs 262 on the control panel 224. If the COOK switch S2 is pressed in the 10 HOUR mode, the control 200 recycles to the 4 HOUR cooking mode, and its indicator.

In general, full power will be applied to the heating element 24 until the time corresponding to the illuminated LED elapses, after which the power to the heating element 24 is reduced by half, the WARM indicator illuminates and all cook time indicators extinguish. The choices of operation are: 4 or 6 hours on a HI temperature, and 8 to 10 hours on a lower temperature setting. Once the user selects the desired setting, the appliance 10 starts the cooking operation. Once the time setting has expired, the appliance 10 automatically reduces power to the heating element 24 to put the unit in a WARM setting. The unit will stay in the WARM setting until the user pushes the OFF button or unplugs the unit. Of course, other programming schemes are possible.

Preferably, the user cannot set the unit initially in the WARM setting. The system will only go to WARM after one of the time functions has expired. This avoids possible food safety problems that may be associated with cooking food only on the WARM setting. Pressing the OFF switch S1 any time the unit is on preferably removes power from the heating element 24 and extinguishes all indicator LEDs 262.

In another embodiment, the slow-cooker appliance utilizes four push-button switches, rather than two, to set times and temperatures for cooking. An exemplary control panel is depicted in FIG. 12, with control circuitry in FIG. 13. Four momentary pushbutton contact switches 227, 229, 231, 233 are used to trigger various power and setting functions as will be described in the cooking procedure below. Of course, other numbers or types of indicators and switches may be substituted as well. FIG. 13 shows circuitry applicable to such an embodiment, incorporating controller 302, external temperature element 310, digital readout 57, and Power LED 263 and Timer LED 265. The Power LED indicates power is present at the microprocessor controller and the Timer LED indicates that the Timer function is on and working.

The operation of the appliance is as follows. The programmable circuitry allows the user to set both the temperature and the desired cooking time. The functions of the switches 227, 229, 231, 233 on an alternative embodiment of a control panel user interface 225, are as follows:

227. ON/OFF power pushbutton—turns the appliance on and off.

229. TIMER pushbutton—activates stepped timer.

231. UP pushbutton—increases displayed numerical value.

233. DOWN pushbutton—decreases displayed numerical value.

When the unit is plugged in, the unit defaults to 150-degrees F. as shown on the digital display 57. The user may adjust the desired cooking temperature in 25-degree increments using the UP 231 button or the DOWN button 233, with 150 degrees Fahrenheit as a minimum temperature. Once the user has selected the specific temperature, the appliance will start the cooking process.

The user may also select the TIMER mode by pressing the TIMER button 229. In TIMER mode, the controller defaults to 4 hours. The user can use the UP or DOWN controls to

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increase or decrease the time in 15-minute increments. Once the time is set, the controller 302 will count down the time remaining for cooking in 1 minute increments until the unit "times out". At that time, the power is shut off from the heating element.

In all modes, the temperature is read periodically by the thermistor or other temperature element and relayed to the controller. The reading is checked at 4-second intervals. If the temperature is above or equal to the set point, power is removed. If it is below the set point, power is applied to the heating element 32. Of course, the circuitry can be modified as desired to achieve various program methods and modes.

Another embodiment of the slow cooker appliance adds a piezobuzzer to the circuitry. A piezobuzzer is simply an electrically-activated buzzer that can be programmed to emit a sound at desired moments. In one embodiment, a piezobuzzer may be installed as an output 315, controlled by the microprocessor controller 302, as shown in FIG. 13, and programmed to emit a sound when desired. In one embodiment, the buzzer may beep to provide feedback to a user when a pushbutton is pushed. The slow cooker may also be programmed to emit a sound to indicate the end of the cooking time. The buzzer may also be used to emit sounds at other desired times.

It is intended that the foregoing description illustrates rather than limits this invention, and that it is the following claims, including all equivalents, which define this invention. Of course, it should be understood that a wide range of changes and modifications may be made to the embodiments described above. Accordingly, it is the intention of the applicants to protect all variations and modifications within the valid scope of the present invention. It is intended that the invention be defined by the following claims, including all equivalents.

What is claimed is:

1. A programmable slow-cooker appliance comprising:

- a heating unit including a bottom and a continuous sidewall extending from said bottom, said bottom and said continuous sidewall including an outer sidewall and an interior sidewall and defining a well-like heating chamber;
- a heating element mounted to said heating unit and disposed between said outer sidewall and said interior sidewall;
- a cooking unit at least partially received within said well-like chamber;
- a non-conductive housing fixedly mounted to and projecting outside said continuous sidewall of said heating unit, said housing having a bottom wall;
- a lower vent in said bottom wall of said housing for admitting relatively cool air to said housing;
- an upper vent in said housing for allowing the escape of relatively warm air from said housing;
- a programmable circuit positioned within said housing such that heat is convected away therefrom as air passes through said housing and said vents and electrically connected to said heating element to electronically control and program cooking cycles and temperature; and
- a control panel on said housing, said control panel being electronically connected to said programmable circuit.

2. A programmable slow-cooker appliance as described in claim 1 wherein said housing is comprised of a shield and a housing portion, said shield being interposed between and adjoining said outer sidewall of said heating unit and said housing portion, said control panel being incorporated on said housing portion.

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3. A programmable slow-cooker appliance as described in claim 2 including a circuit board including said circuit mounted to and positioned within said housing, and a Triac electrically connected between said circuit board and said heating element.

4. A programmable slow-cooker appliance as described in claim 3 further including a heat sink position within said housing between said circuit and said control panel.

5. A programmable slow-cooker appliance as described in claim 4 wherein said Triac includes a heat sink tab in thermal contact with said heat sink.

6. A programmable slow-cooker appliance as described in claim 1 wherein said control panel includes a user interface located on an inclined front surface of said housing spaced away from said outer sidewall of said heating unit.

7. A programmable slow-cooker appliance as described in claim 6 wherein said lower and upper vents are positioned to allow air to circulate behind said control panel and assist in the dissipation of heat from said programmable circuit.

8. A programmable slow-cooker appliance as described in claim 6 wherein said housing is comprised of a shield and a housing portion, said shield being interposed between and adjoining said outer sidewall of heating unit and said housing portion, said control panel being incorporated on said housing portion.

9. A programmable slow-cooker appliance as described in claim 8 wherein said upper and lower vents are in said housing portion.

10. A programmable slow cooker appliance as described in claim 9 wherein said housing is comprised of a thermoplastic material.

11. A programmable slow-cooker appliance as described in claim 1 wherein said cooking unit is made from a ceramic material and is removably positioned in said well-like chamber.

12. A programmable slow-cooker appliance comprising:
- a heating unit including a bottom and a continuous sidewall extending from said bottom, said bottom and said continuous sidewall defining a well-like chamber;
 - a heating element mounted to said heating unit for providing heat to said well-like chamber;
 - a ceramic cooking unit removably positioned in said well-like chamber;
 - a non-conductive housing fixedly mounted to and projecting outside said continuous sidewall of said heating unit;
 - a programmable circuit positioned within said housing and electrically connected to said heating element to electronically control and program cooking cycles and temperature;
 - means including vents in said housing for cooling said programmable circuit by convecting heat away therefrom; and
 - a control panel mounted to said housing and electrically connected to said programmable circuit.

13. A programmable slow-cooker appliance as described in claim 12 wherein said programmable circuit includes a microprocessor controller.

14. A programmable slow-cooker appliance as described in claim 13 wherein said housing is comprised of a shield and a housing portion, said shield being interposed between and adjoining said sidewall of said heating unit and said housing portion, said control panel being incorporated on said housing portion.

15. A programmable slow-cooker appliance as described in claim 12 including means for automatically switching said heating element from a cook mode to a warm mode.

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16. A programmable slow-cooker appliance as described in claim 15 including a Triac electrically connected between said programmable circuit and said heating element.

17. A programmable slow-cooker appliance as described in claim 16 including a heat sink positioned within said housing, said Triac including a heat sink tab in thermal contact with said heat sink.

18. A programmable slow-cooker appliance as described in claim 12 wherein said means for cooking includes a lower vent in said housing for admitting relatively cool air to said housing and an upper vent in said housing for allowing the escape of relatively warm air from said housing.

19. A programmable slow-cooker appliance as described in claim 12 wherein said programmable circuit is configured to switch said heating element from a cooking mode to a warming mode at the expiration of a set cooking time.

20. A programmable slow-cooker appliance comprising:

- a heating unit including a bottom and a continuous sidewall extending from said bottom, said bottom and said continuous sidewall defining a well-like chamber, said continuous sidewall including an outer sidewall and an interior sidewall;
- a heating element mounted to said heating unit and disposed between said outer sidewall and said interior sidewall;
- a housing fixedly mounted to and projecting outside said continuous sidewall of said heating unit;
- a programmable circuit positioned within said housing and configured to automatically switch said heating element from a cook mode to a lower temperature warm mode at the end of a set cooking time;
- a control panel mounted to said housing and including a user interface connected to said programmable circuit for selecting a cooking temperature and cooking time; and
- a cooking unit removably positioned in said well-like chamber.

21. A programmable slow-cooker appliance as described in claim 20 wherein said housing includes a plurality of vent openings, a thermoplastic shield and a housing portion, said shield being disposed between and adjoining said outer sidewall of said heating unit and said housing portion, said housing portion including a control panel.

22. A programmable slow-cooker appliance as described in claim 21 including a heat sink positioned within said housing.

23. A programmable slow-cooker appliance as described in claim 22 including a Triac positioned within said housing and electrically connected between said programmable circuit and said heating element, said Triac being in thermal contact with said heat sink.

24. A programmable slow-cooker appliance as described in claim 20 wherein said housing is comprised of a thermoplastic material and said cooking unit is comprised of a ceramic material, said cooking unit being removably positioned in said well-like chamber.

25. A programmable slow-cooker appliance as described in claim 21 wherein said housing is comprised of a thermoplastic material and said cooking unit is comprised of a ceramic material.

26. A programmable slow-cooker appliance as described in claim 20 wherein said programmable circuit is configured such that a user cannot initially set a lower temperature warm mode.

27. A programmable slow-cooker appliance as described in claim 20 including a switch operatively associated with

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said control panel, said programmable circuit being configured such that subsequent pushes of said switch activates different cook modes.

28. A programmable slow-cooker as described in claim 27 wherein said housing is vented.

29. A programmable slow-cooker appliance as described in claim 20 wherein said housing includes a thermoplastic portion adjoining and extending into said continuous sidewall of said heating unit.

30. A programmable slow-cooker appliance as described in claim 20 wherein said circuit is configured to default to cause operation of said appliance at a cooking temperature when plugged into a power source.

31. A slow-cooker appliance comprising:

- a heating unit including a bottom and a sidewall defining a well-like heating chamber and a heating element for providing heat to said heating chamber;
- a ceramic cooking unit including a bottom, a continuous sidewall upstanding from said bottom, and a lip extending outwardly from said sidewall, said cooking unit being dimensioned to be at least partially received within said well-like heating chamber and supported by engagement of said lip with said heating unit;
- a housing assembly mounted to and projecting outwardly from said sidewall of said heating unit, said housing assembly including a thermoplastic portion adjoining said outer sidewall, an inclined front surface including a control panel having a user interface, and a vent opening; and
- a programmable circuit positioned within said housing assembly, said user interface being connected to said programmable circuit for selecting cooking temperature and cooking time, said programmable circuit being configured to automatically switch said heating element from a cook mode to a lower temperature warm mode at the end of a set cooking time.

32. A slow-cooker appliance as described in claim 31 wherein said thermoplastic portion of said housing assembly extends into said sidewall of said heating unit.

33. A slow-cooker appliance as described in claim 31 wherein said housing assembly includes a bottom wall including a plurality of vent openings.

34. A slow-cooker appliance as described in claim 33 wherein said housing assembly includes a plurality of upper vent openings such that heat is convected away from said programmable circuit as air flows into said housing assembly through said vent openings in said bottom wall, through said housing assembly, and out of said housing assembly through said upper vent openings.

35. A slow-cooker appliance as described in claim 31 including a switch operatively associated with said control panel, said programmable circuit being configured such that subsequent pushes of said switch activates different cook modes.

36. A slow-cooker appliance as described in claim 31 wherein said circuit is configured to default to cause operation of said appliance at a cooking temperature when plugged into a power source.

37. A programmable slow-cooker appliance comprising:

- a heating unit including a bottom and a continuous sidewall defining a well-like heating chamber and a heating element positioned for providing heat to said well-like heating chamber;
- a cooking unit including a lip and adapted to fit at least partially within said heating unit such that said lip engages a top portion of said heating unit;

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a housing assembly mounted to and projecting from said sidewall of said heating unit, said housing assembly including a thermoplastic portion adjoining said sidewall of said heating unit, a bottom wall adjoining said sidewall, and an inclined front surface including a control panel user interface spaced from said sidewall; and

a circuit including a programmable controller positioned within said housing assembly and operatively associated with said user interface, said circuit being configured to allow a user to set both cooking temperature and cooking time and to cause said heating element to operate in a warm mode at the expiration of a set cooking time, said control panel being electronically connected to said circuit.

38. A programmable slow-cooker appliance as described in claim 37 wherein said circuit is incorporated on a printed circuit board and a heat sink is positioned in said housing assembly between said printed circuit board and said control panel user interface.

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39. A programmable slow-cooker appliance as described in claim 37 wherein said bottom wall of said housing assembly is vented.

40. A programmable slow-cooker appliance as described in claim 37 wherein said housing assembly includes an upper vent opening positioned such that, when operated, relatively cool air enters said housing assembly through said vented bottom wall, passes over said circuit, and relatively warm air exits said housing assembly through said upper vent opening.

41. A programmable slow-cooker appliance as described in claim 37 wherein said circuit is configured to default to cause operation of said appliance at a cooking temperature when plugged into a power source.

42. A programmable slow-cooker appliance as described in claim 41 including a switch operatively associated with said control panel such that subsequent pushes of said switch activates different cooking times and temperatures.

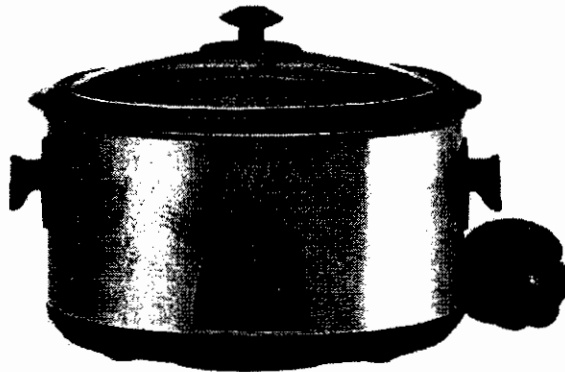
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WEST BEND®

HOUSEWARES

6-Quart Electronic Crockery™ Cooker

Instruction Manual



Register this and other West Bend® Housewares products through our website:

www.westbend.com

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SAVE THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE

Important Safeguards



CAUTION

To prevent personal injury or property damage, read and follow all instructions and warnings.

When using electrical appliances, basic safety precautions should always be followed including the following:

- Read all instructions, including these important safeguards and the care and use instructions in this manual.
- Do not use appliance for other than intended use.
- The use of accessory attachments not recommended by West Bend® Housewares may cause injuries.
- Do not use ceramic pot or glass cover if chipped, cracked or has deep scratches as weakened glass and ceramic can shatter during use. Discard immediately. See Replacement Part section in this booklet on how to obtain a replacement part.
- Do not attempt to repair this appliance yourself.
- For household use only.



CAUTION

To prevent burns, personal injury or property damage, read and follow all instructions and warnings.



Heat Precautions

- Do not touch hot surfaces. Use hot pads or oven mitts if you lift or carry the ceramic pot or cover when it is hot.
- Do not move an appliance containing hot oil or other hot liquids.
- Lift cover slowly, directing steam away from you.
- Set ceramic pot and cover on hot pad, trivet or other heat protective surface. Do not set hot ceramic pot or cover directly on the counter, table or other surface.
- Do not preheat the heating base.
- Do not add frozen/cold foods or liquids into heated ceramic pot. Sudden temperature change may cause the cover or ceramic pot to crack or shatter.
- Do not use the ceramic pot or cover on the stove top, under the broiler, in the freezer, or in the oven. You may use the ceramic pot in the microwave oven, but do not place the glass cover in the microwave oven as it has a metal ring.



CAUTION

To prevent electrical shock, personal injury or property damage, read and follow all instructions and warnings.



Electricity Precautions

- To protect against electric shock do not immerse cord, plugs, or other electric parts in water or other liquids.
- Do not operate any appliance with a damaged cord or plug.
- Do not operate when the appliance is not working properly or when it has been damaged in any manner. For service information see warranty page.
- Do not use electric parts outdoors, or place them on or near a gas or electric burner, in a heated oven, or in the refrigerator.
- Always turn control to OFF and unplug the appliance from outlet when not in use and before cleaning.
- Your crockery cooker has a short cord as a safety precaution to avoid pulling, tripping or entanglement. To avoid pulling, tripping or entanglement, position the cord so that it does not hang over the edge of the counter, table or other flat surface areas or touch hot surfaces.
- While use of an extension cord is not recommended, if you must use one, make sure the cord has the same or higher wattage as the crockery cooker (wattage is stamped on the underside of the crockery cooker base). To avoid pulling, tripping or entanglement, position the cord so that it does not hang over the edge of the counter, table or other flat surface areas or touch hot surfaces.
- Use an electrical outlet that accommodates the polarized plug on the crockery cooker. On a polarized plug, one blade of the plug is wider than the other. If the plug does not fit fully into the outlet or extension cord, reverse the plug. If the plug still does not fit fully, contact a qualified electrician. Do not alter the plug.
- Do not use an outlet or extension cord if the plug fits loosely or if the outlet or extension cord feels hot.



CAUTION

To prevent burns or other personal injuries to children, read and follow all instructions and warnings.

Precautions For Use Around Children

- Always supervise children.
- Do not allow children to operate or be near the crockery cooker, as the outside surfaces are hot during use.
- Do not allow cord to hang over any edge where a child can reach it. Arrange cord to avoid pulling, tripping or entanglement.

SAVE THESE INSTRUCTIONS

Using Your Crockery Cooker – Everyday Use

- Before using for the first time, wash the ceramic pot and cover with hot soapy water, rinse and dry.
1. Place heating base on dry, level, heat-resistant surface, away from any edge.
 2. Place foods into ceramic pot, cover and place into heating base. If you need to brown or precook foods – you must use a separate skillet or pan. Direct heat from the stovetop or oven will break the ceramic pot. Plug cord into a 120 volt AC electric outlet only.
 3. Press On/Off button. **SEL** will be displayed and **HI** temperature setting is indicated with a flashing green light.
 4. Press to select **HI**, **LO**, or **WARM** setting.
 5. To turn cooker on press . Display will count up, showing elapsed cooking time.

To program cooking time:

1. Press . **Note:** Only **HI** or **LO** settings are available for programmed cooking time.
2. Press (time) button to scroll up to desired cooking time.
3. Press to start cooking cycle. When the cycle is completed the crockery cooker will shift to the **WARM** setting and timer will count up from zero showing the elapsed time on warm.
4. Press On/Off button to turn off your crockery cooker.

Cleaning Your Crockery Cooker

1. Allow the entire unit (base, ceramic pot and cover) to cool before cleaning. Set ceramic pot and cover on dry, heat-protective surface for gradual cooling.
 2. Wipe heating base and cord with a damp cloth after it has been unplugged and the base is cool.
 3. Ceramic pot and cover may be washed using hot soapy water by hand or cleaned in the dishwasher. Avoid contact between pieces to prevent damage.
- Do not run cold water over hot ceramic pot or cover, as they may crack if cooled suddenly.
 - Do not immerse heating base, cord, plugs or other electric parts in water or other liquid.
 - Use a non-abrasive cleanser or baking soda paste to remove stains. Do not use metal scouring pads or cleansers. Wipe with distilled vinegar to remove water spots or mineral deposits. Rewash with hot soapy water, rinse and dry.

Helpful Hints

- To extend or change cooking cycle time, press time button and scroll to new cycle time. Press Cook to initiate cycle.
- To change temperature setting, press the TEMP button at any time. Changing temp to WARM will automatically shift timer to show elapsed time. Programmable cooking is not available with WARM setting.
- The Cook button confirms your suggested settings and turns on the crockery cooker. If you fail to press the cook button, the display will beep and flash to alert you. After approximately 10 seconds, the crockery cooker will start in the displayed mode.
- The crockery cooker will automatically shut off after 20 hours of total cooking time. To disable this feature, press the cook and timer buttons simultaneously. You will now be able to cook more than 20 hours, and the display will continue to flash --:-- Press On/Off button to turn off the cooker.
- Some smoke and/or odor may occur upon heating due to the release of manufacturing oils – this is normal.
- Some expansion/contraction sounds may occur during heating and cooling – this is normal
- If your crockery cooker has a Warm function, do **NOT** cook foods on this setting as the temperature does not get hot enough to cook foods. Use Warm setting only to keep hot, cooked foods warm for serving.
- Avoid removing the cover when cooking. Cooking time will be increased due to loss of heat. Remove cover only when necessary to stir or add ingredients. Always lift cover slowly, directing steam away from you.
- After food is cooked, set to lowest setting for serving or turn control to OFF position.
- Unplug cord from electric outlet after use and allow the crockery cooker to cool before cleaning.

- Do not allow children to use the crockery cooker or be around the crockery cooker, as the outside surfaces of the crockery cooker are hot during use.
- Use only plastic, rubber, wooden or non-metal cooking tools with ceramic pot. Use of metal cooking tools may scratch the ceramic pot.
- Stir foods occasionally to reduce sticking to sides of ceramic pot.
- Foods will be brought to a simmer at all cooking settings. The setting determines the time needed to reach a simmer.
- If the ceramic pot is filled less than half full, suggested cooking times should be reduced.
- Less tender, less expensive cuts of meat are better suited to slow cooking than expensive cuts of meat. Remove excess fat from meat when possible before cooking. Remove skin from poultry, if desired, before cooking.
- Raw vegetables take longer to cook than meats as the liquid simmers rather than boils. Cut vegetables into uniform, bite-size pieces to cook evenly.
- You may fill the ceramic pot with food the night before cooking and refrigerate. When ready, place ceramic pot into the heating base and cook. The gradual warming will not harm the ceramic pot.
- Insert a meat thermometer into roast, hams or whole chickens to ensure meats are cooked to recommended temperature. Fresh or thawed fish and seafood fall apart during long hours of cooking. Add these ingredients an hour before serving.
- Milk, sour cream and natural cheese break down during long hours of cooking. Add these ingredients just before serving or substitute with undiluted condensed creamed canned soups or evaporated milk. Processed cheese tends to give better results than naturally aged cheese.
- Rice and pasta may be added uncooked during the last hour of cooking time. If added uncooked, make sure there are at least two cups of liquid in the cooking pot. Stir occasionally to prevent sticking.

Recipes

Many of your favorite recipes may be adapted to the West Bend® Housewares Crockery Cooker. To do so, use the following guide.

<u>If your recipe says to cook for...</u>	<u>Cook at LO for...</u>	<u>Cook at HI for...</u>
30 minutes	6 to 8 hours	3 to 4 hours
35 to 60 minutes	8 to 10 hours	5 to 6 hours
1 to 3 hours	10 to 12 hours	7 to 8 hours

Try some of our favorite recipes using the West Bend® Housewares, LLC Crockery Cooker that we have included on the following pages to get you started.

Chicken Vegetable Stew		
2-2 1/2 lbs		chicken parts - skinned if desired
5		carrots - cut into 1/2-inch pieces
3		ribs celery - cut into 1/2-inch pieces
1		7 ounce can mushroom stems and pieces - undrained
1		15 ounce jar whole small onions - undrained - OR 1 medium onion, chopped
1		16 ounce bag frozen peas - rinsed with hot water
1	tsp	salt
3/4	tsp	dried thyme leaves
3/4	tsp	paprika
1/2	tsp	rubbed sage
1/2	tsp	pepper
1 1/2	cups	water
1		6 ounce can tomato paste
2		10.5 ounce cans chicken broth
4	tbsp	cornstarch
1/3	cup	water

Cooking Time: LO = 8 to 10 hours HI = 5 to 6 hours

1. Place chicken parts, carrots, celery, mushrooms, onions and peas in ceramic cooking pot. In medium bowl combine salt, thyme, paprika, sage, pepper, water, tomato paste and broth. Pour over chicken mixture.
2. Place ceramic pot into heating base, cover and cook at desired heat setting for time given or until chicken and vegetables are tender.
3. Remove chicken pieces and set aside to cool slightly. Remove meat from bones and cut into bite-size pieces. Return meat to cooking pot; stir to combine.
4. Set control to HI. Combine cornstarch and water; stir slowly into stew until thickened. Serves 6 to 8. Set at LO for serving if desired.

Slow Cooker Stew	
2-2 1/2 lbs	beef stew meat, cut into 1-inch pieces
1	medium onion – chopped
6	carrots – cut into 1/2-inch pieces
4	ribs celery – cut into 1/2-inch pieces
5	medium potatoes – cut into 1/2-inch pieces
1	28 ounce can whole tomatoes – undrained – cut up
2	10.5 ounce cans beef broth
1 1/2 tbsp	worcestershire sauce
2 tbsp	dried parsley flakes
2	bay leaves
1 1/2 tsp	salt
1/2 tsp	pepper
3 tbsp	quick cooking tapioca

Cooking Time: LO = 8 to 10 hours HI = 5 to 6 hours

1. Combine all ingredients in ceramic cooking pot; stir to blend.
2. Place ceramic pot into the heating base, cover and cook at desired heat setting for time given or until meat and vegetables are tender. Remove bay leaves before serving. Serves 6 to 8. Set at LO for serving if desired.

Chili	
2 lbs	lean ground beef or turkey
1 1/2 cups	chopped onion
1 1/2 cups	chopped green pepper
2	garlic cloves - minced
3	28 ounce cans whole tomatoes – undrained – cut up
1	15 ounce can kidney beans - undrained
2 1/2 tbsp	chili powder
1 1/2 tsp	ground cumin
1 1/2 tsp	salt
3/4 tsp	pepper

Cooking Time: LO = 8 to 10 hours HI = 4 to 5 hours

1. Brown ground beef or turkey with onion, green pepper and garlic in skillet over medium heat of range unit. Remove excess grease. Transfer mixture into ceramic pot. Add remaining ingredients; stir to blend.
2. Place ceramic pot into heating base, cover and cook at desired heat setting for time given. Serves 6 to 8. Set at LO for serving, if desired.

Hearty Chicken Noodle Soup		
2-2 1/2	lbs	chicken parts, skinned, if desired
6	cups	water
1		medium onion - chopped
6		carrots - cut into 1/2-inch pieces
5		ribs of celery - cut into 1/2-inch pieces
1		14.5 ounce can whole tomatoes - undrained - cut up
1 1/2	tbsp	instant chicken bouillon
1	tbsp	dried parsley flakes
1	tsp	salt
1/2	tsp	dried rosemary leaves
1/2	tsp	pepper
1	cup	uncooked fine egg noodles

Cooking Time: LO = 8 to 10 hours HI = 5 to 6 hours

1. Combine all ingredients, except egg noodles in the ceramic pot. Place cooking pot into heating base, cover and cook at desired heat setting for time given or until chicken and vegetables are tender.
2. Remove chicken pieces from ceramic pot and set aside to cool slightly. Set control to HI and add noodles, stirring to combine. Cover and continue to cook 30 minutes.
3. Remove chicken from bones and cut into bite-size pieces. Return meat to cooking pot and cook until noodles are tender. Serves 6 to 8. Set at LO for serving, if desired.

Corned Beef and Cabbage		
3 - 4	lbs	corned beef brisket
1		medium onion - sliced
1/2	tsp	celery seed
1/2	tsp	mustard seed
1		clove garlic - minced
1		bay leaf
1		small head cabbage - cut into wedges
		water

Cooking Time: LO = 8 to 10 hours

1. Place brisket with liquid and spices from package into ceramic cooking pot. Add onion, celery seed, mustard seed, garlic and bay leaf. Add just enough water to cover brisket. Cover and cook at LO for 8 to 10 hours or until brisket is fork tender.
2. During last hour of cooking, add cabbage wedges and continue cooking at LO. Discard cooking liquid and spices. Serves 6.

Minestrone Soup		
3	cups	water
2		10.5 ounce cans chicken broth
1		medium onion - chopped
3		carrots – diced
1		medium zucchini, halved and cut into $\frac{1}{2}$ - inch slices
1 $\frac{1}{2}$	cups	cabbage - chopped
1		15 ounce can garbanzo beans - undrained
3		14.5 ounce cans whole tomatoes – undrained – cut-up
5		slices bacon – cooked & crumbled – optional
2		garlic cloves - minced
1 $\frac{1}{2}$	tsp	Italian seasoning
1	tsp	salt
$\frac{1}{2}$	tsp	pepper
$\frac{3}{4}$	cup	small elbow macaroni or other pasta - uncooked

Cooking Time: LO = 8 to 10 hours HI = 5 to 6 hours

1. Combine all ingredients, except macaroni in the ceramic pot; stir to blend. Place cooking pot into heating base, cover and cook at desired heat setting for time given or until vegetables are tender.
2. Increase heat to HI setting and add macaroni; stir to blend. Cover and cook for 30 minutes. Serves 6 to 8. Set at LO for serving, if desired.

Company Chicken		
3 - 4	lbs	chicken parts, skinned if desired
		salt and pepper to taste
2		10.5 ounce cans condensed cream of mushroom soup
2		10.5 ounce cans condensed tomato soup
$\frac{1}{4}$	cup	flour
2		cloves garlic – minced
1		16 ounce jar small whole onions – drained, OR 1 large onion - sliced and separated into rings

Cooking Time: LO = 8 to 10 hours HI = 5 to 6 hours

1. Season chicken parts with salt and pepper and place into ceramic cooking pot. In bowl, combine remaining ingredients, stirring well to blend. Pour over chicken.
2. Cover and cook at desired heat setting for time given or until chicken is tender. Serves 6 to 8. Set at LO for serving, if desired.

Herbed Pork Roast		
4		large garlic cloves – quartered
5	lbs	pork roast – boneless or bone-in
1	tsp	salt
1	tsp	ground thyme
$\frac{1}{2}$	tsp	rubbed sage
$\frac{1}{2}$	tsp	ground cloves
1	tsp	grated lemon peel
$\frac{1}{2}$	cup	water
3	tbsp	cornstarch - optional
3	tbsp	water - optional

Cooking Time: LO = 9 to 10 hours HI = 5 to 6 hours

1. Cut 16 small pockets into roast and insert garlic pieces. In small bowl combine salt, thyme, sage, cloves and lemon peel. Rub on pork roast.
2. Pour $\frac{1}{2}$ cup water into the ceramic cooking pot. Add roast. Place pot into heating base, cover and cook at desired heat setting for time given or until meat thermometer inserted into center of roast reads 170°F or higher.
3. Allow roast to stand 10 to 15 minutes before carving. Remove garlic pieces. Juices may be thickened for gravy if desired. Dissolve cornstarch in water. Set control to HI. Stir slowly into juices until thickened. Serves 6 to 8.

Beef Roast with Vegetables		
3-3 $\frac{1}{2}$	lbs	beef roast
		salt and pepper to taste
1		large onion – quartered or sliced
6		carrots – cut into 1-inch pieces
6		medium potatoes – quartered and halved
$\frac{1}{2}$	cup	water

Cooking Time: LO = 9 to 10 hours HI = 5 to 6 hours

1. If desired, brown roast in skillet over medium heat of range unit before placing into ceramic cooking pot. Season as desired. Place vegetables around roast. Add water.
2. Place ceramic pot into heating base, cover and cook at desired heat setting for time given or until meat and vegetables are tender. (Meat thermometer should read 170°F for well done). Thicken juices with mixture of 2 tablespoons cornstarch and 2 tablespoons water if desired. Set control to HI and slowly stir mixture into juices until thickened. Serves 6. Set at LO for serving, if desired.

Product Warranty

Appliance 1 Year Limited Warranty

West Bend® Housewares, LLC warrants this appliance from failures in the material and workmanship for 1 year from the date of original purchase, provided the appliance is operated and maintained in conformity with the West Bend® Housewares, LLC Instruction Manual. Any failed part of the appliance will be repaired or replaced without charge at West Bend® Housewares, LLC discretion. This warranty applies to indoor household use only.

The West Bend® Housewares, LLC warranty does not cover any damage, including discoloration, to any non-stick surface of the appliance. The West Bend® Housewares, LLC warranty is null and void, as determined solely by West Bend® Housewares, LLC, if the appliance is damaged through accident, misuse or abuse, scratching, overheating, or if the appliance is altered in any way or if used outside of an indoor household setting.

This warranty gives you specific legal rights. You may also have other rights, which may vary from state to state.

THIS WARRANTY IS IN LIEU OF ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE, WHICH ARE HEREBY EXCLUDED. IN NO EVENT SHALL WEST BEND® HOUSEWARES, LLC BE LIABLE FOR ANY DAMAGES, WHETHER DIRECT, IMMEDIATE, INCIDENTAL, FORESEEABLE, CONSEQUENTIAL, OR SPECIAL, ARISING OUT OF OR IN CONNECTION WITH ITS APPLIANCE.

If you think the appliance has failed or requires service within its warranty period, return it to the original place of purchase. For further details please contact the West Bend® Housewares Customer Service Department at (262) 334-6949 or e-mail us at housewares@westbend.com. Return shipping fees are non-refundable. Hand-written receipts are not accepted. West Bend Housewares, LLC is not responsible for returns lost in transit.

Valid only in USA and Canada

Replacement Parts

Replacement parts may be ordered direct from West Bend® Housewares, LLC by ordering online at www.westbend.com: Replacement Parts. Or you may call or e-mail the service department at the number/e-mail address listed above, or by writing to us at:

West Bend Housewares, LLC
Attn: Customer Service
P.O. Box 2780
West Bend, WI 53095



Be sure to include the catalog/model number of your appliance (located on the bottom/back of the unit) and a description and quantity of the part you wish to order. Along with this include your name, mailing address, Visa/MasterCard number, expiration date and the name as it appears on the card. Checks can be made payable to West Bend Housewares, LLC Call Customer Service to obtain purchase amount. Your state's sales tax and a shipping/processing fee will be added to your total charge. Please allow two (2) weeks for delivery.

This manual contains important and helpful information regarding the safe use and care of your new West Bend® Housewares, LLC product. For future reference, attach dated sales receipt for warranty proof of purchase and record the following information:

Date purchased or received as gift: _____

Where purchased and price, if known: _____

Item Number and Date Code (shown bottom/back of product): _____

Garantía del producto

Garantía limitada de 1 año del aparato electrodoméstico

West Bend® Housewares, LLC garantiza que este aparato no presentará fallas de material ni fabricación durante 1 año a partir de la fecha original de compra, siempre y cuando el aparato sea operado y mantenido tal como se indica en el manual de instrucciones de West Bend® Housewares, LLC. Toda pieza del aparato que presente fallas será reparada o reemplazada sin costo alguno a criterio de West Bend® Housewares, LLC. Esta garantía rige solamente para el uso doméstico en interiores.

La garantía de West Bend® Housewares, LLC no cubre ningún daño, incluyendo la decoloración, de superficie antiadherente alguna del aparato electrodoméstico. La garantía de West Bend® Housewares, LLC quedará nula e inválida, según lo determine exclusivamente West Bend® Housewares, LLC, si el aparato electrodoméstico resultase dañado debido a accidentes, uso indebido o abuso, rayas, sobrecalentamiento o si es alterado de algún modo o no se usa en forma doméstica y en interiores.

Esta garantía le otorga derechos legales específicos. Usted también puede tener otros derechos, los cuales pueden variar de una jurisdicción a otra.

ESTA GARANTÍA REEMPLAZA A TODAS LAS DEMÁS GARANTÍAS IMPLÍCITAS, INCLUYENDO AQUÉLLAS DE COMERCIABILIDAD E IDONEIDAD PARA UN FIN O USO EN PARTICULAR, LAS CUALES QUEDAN EXCLUIDAS MEDIANTE EL PRESENTE DOCUMENTO. WEST BEND® HOUSEWARES, LLC RECHAZA TODA RESPONSABILIDAD POR DAÑOS, YA SEAN DIRECTOS, INMEDIATOS, INCIDENTALES, PREVISIBLES, CONSECUENTES O ESPECIALES QUE SURJAN DEL USO DEL APARATO ELECTRODOMÉSTICO O GUARDEN RELACIÓN CON EL MISMO.

Si dentro del período de garantía usted considera que el aparato electrodoméstico presenta fallas o requiere servicio, devuélvalo al lugar de compra original. Para obtener mayores detalles comuníquese con el Departamento de Servicio al Cliente al (262) 334-6949 o por correo electrónico a housewares@westbend.com. Los gastos de devolución no son reembolsables. Los recibos escritos a mano no son válidos. West Bend Housewares, LLC no se hace responsable de las devoluciones perdidas en tránsito.

Válido sólo en EE.UU. y Canadá

Repuestos

Solicite los repuestos a West Bend® Housewares, LLC directamente en línea en www.westbend.com, "Replacement Parts", llamando o enviando un mensaje de correo electrónico al departamento de servicios al número/dirección antedichos o escribiendo a: West Bend Housewares, LLC Repuestos O puede llamarnos o enviarnos un mensaje de correo electrónico al departamento de servicios al número/dirección antedichos o escribiéndonos a:

West Bend Housewares, LLC
Attn: Customer Service
P.O. Box 2780
West Bend, WI 53095, EE.UU.



Cerciórese de incluir el número de catálogo/modelo del aparato electrodoméstico (situado en la parte inferior/posterior de la unidad) así como la descripción y la cantidad de repuestos que necesita. Junto con esta información, incluya su nombre, dirección postal, número de tarjeta de crédito Visa o MasterCard, la fecha de vencimiento y el nombre tal como aparece en la tarjeta. Los cheques deben hacerse pagaderos a West Bend Housewares, LLC. Llame a Servicio a la Clientela para que le informen el monto de la compra. Se sumará al total el impuesto de venta estatal que corresponda, más un cargo por despacho y procesamiento. La entrega tarda dos (2) semanas.

Este folleto contiene información importante y útil sobre el uso seguro y el cuidado de su nuevo producto de West Bend® Housewares, LLC. Para su propia referencia, archive aquí el recibo fechado que sirve de comprobante de compra para la garantía, y anote la siguiente información:

Fecha en que compró o recibió la unidad como regalo:

Dónde se efectuó la compra y el precio, si lo sabe:

Número y código de fecha del producto (aparece en la parte inferior/posterior de la unidad):

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS1. Title of case (name of first party on each side only) The Holmes Group, Inc.; West Bend Housewares, LLC

2. Category in which the case belongs based upon the numbered nature of suit code listed on the civil cover sheet. (See local rule 40.1(a)(1)).

☐

I. 160, 410, 470, R.23, REGARDLESS OF NATURE OF SUIT.

☒

II. 195, 368, 400, 440, 441-444, 540, 550, 555, 625, 710, 720, 730, 740, 790, 791, 820*, 830*, 840*, 850, 890, 892-894, 895, 950.

*Also complete AO 120 or AO 121 for patent, trademark or copyright cases

☐

III. 110, 120, 130, 140, 151, 190, 210, 230, 240, 245, 290, 310, 315, 320, 330, 340, 345, 350, 355, 360, 362, 365, 370, 380, 385, 450, 891.

☐

IV. 220, 422, 423, 430, 460, 510, 530, 610, 620, 630, 640, 650, 660, 690, 810, 861-865, 870, 871, 875, 900.

☐

V. 150, 152, 153.

3. Title and number, if any, of related cases. (See local rule 40.1(g)). If more than one prior related case has been filed in this district please indicate the title and number of the first filed case in this court.

4. Has a prior action between the same parties and based on the same claim ever been filed in this court?

YES ☐NO ☒

5. Does the complaint in this case question the constitutionality of an act of congress affecting the public interest? (See 28 USC §2403)

YES ☐NO ☒

If so, is the U.S.A. or an officer, agent or employee of the U.S. a party?

YES ☐NO ☐

6. Is this case required to be heard and determined by a district court of three judges pursuant to title 28 USC §2284?

YES ☐NO ☒7. Do all of the parties in this action, excluding governmental agencies of the united states and the Commonwealth of Massachusetts ("governmental agencies"), residing in Massachusetts reside in the same division? - (See Local Rule 40.1(d)).YES ☒NO ☐A. If yes, in which division do all of the non-governmental parties reside?Eastern Division ☐Central Division ☒Western Division ☐

B. If no, in which division do the majority of the plaintiffs or the only parties, excluding governmental agencies, residing in Massachusetts reside?

Eastern Division ☐Central Division ☐Western Division ☐

8. If filing a Notice of Removal - are there any motions pending in the state court requiring the attention of this Court? (If yes, submit a separate sheet identifying the motions)

YES ☐NO ☐

(PLEASE TYPE OR PRINT)

ATTORNEY'S NAME Nicholas J. NesgosADDRESS Posternak Blankstein & Lund, 800 Boylston St.,
Boston, MA 02199TELEPHONE NO. 617-973-6100

JS 44 (Rev. 11/04)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

The Holmes Group, Inc.

(b) County of Residence of First Listed Plaintiff Worcester
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)

Nicholas J. Nesgos, Posternak Blankstein & Lund
800 Boylston St., Boston, MA 02199; 617-973-6100

DEFENDANTSWest Bend Housewares, LLC and
Focus Products Group, LLC

County of Residence of First Listed Defendant _____
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE
LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☒ 3 Federal Question (U.S. Government Not a Party)
☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury	PERSONAL INJURY <input type="checkbox"/> 362 Personal Injury - Med. Malpractice <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 610 Agriculture <input type="checkbox"/> 620 Other Food & Drug <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 630 Liquor Laws <input type="checkbox"/> 640 R.R. & Truck <input type="checkbox"/> 650 Airline Regs. <input type="checkbox"/> 660 Occupational Safety/Health <input type="checkbox"/> 690 Other	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 440 Other Civil Rights	PRISONER PETITIONS <input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus: <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition	<input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act	SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	

V. ORIGIN

(Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from another district (specify) _____
☐ 6 Multidistrict Litigation
☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):

35 U.S.C. section 271 et. seq.

Brief description of cause:

Claim for patent infringement

VII. REQUESTED IN COMPLAINT:
☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23
DEMAND \$

CHECK YES only if demanded in complaint:

JURY DEMAND: ☒ Yes ☐ No**VIII. RELATED CASE(S) IF ANY**

(See instructions):

JUDGE _____

DOCKET NUMBER _____

DATE

6/28/05

SIGNATURE OF ATTORNEY OF RECORD

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____